BARRATT AND DAVID WILSON HOMES YORKSHIRE WEST

RESIDENTIAL DEVELOPMENT

LOW BARUGH, BARNSLEY

LANDSCAPE MANAGEMENT DOCUMENT

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A INTRODUCTION

This Management Plan sets out the management prescriptions to be adopted for the landscape scheme associated with the residential development and Public Open Space at Low Barugh, Barnsley. The prescriptions cover the works to be carried out over the 5 year period relating to the planning condition with a system in place for reviewing operations at the end of the 5 years to allow the plan to be updated in accordance with site conditions and to put in place an appropriate schedule of works going forward.

The Landscape Management Plan covers works detailed in the landscape drawings. The following authorities will be responsible for the maintenance of other areas on site:
Yorkshire Water – Drainage
Highway Authority (Barnsley MBC) – Roads, verges and street lighting

A.1 Site Location

The site is located at the Barratt and David Wilson Homes development to the south of Dearne Hall Rd, Low Barugh, Barnsley.

The site is a residential development site with extensive areas of open space comprising:

- Existing mature trees and hedgerows
- New tree planting
- New native species planting
- Species rich grassland
- New amenity grassland
- New ornamental shrubs
- Equipped Play Area

A.1 Documents

The management prescriptions contained in this document are for the future maintenance and management of work detailed on the following drawings:

R/1667/1D Landscape Masterplan
R/1667/2A Eastern POS Masterplan
R/1667/3 Eastern POS Details
R/1667/4 Western POS Details
R/1667/5 Landscape Details for POS Areas
R/1667/6 NEAP Details
R/1667/7 Gabion Details
R/1667/8 and R/1667/15 Landscape Details (Plots)

The Landscape Masterplan and POS Details are appended to this document in Appendices 3 and 4. The planting details are available separately and should be referred to as necessary.

A.1.1 In the preparation of this document reference has been made to the following Reports:

Ecological Phase 1 Report - BSG Ecology Ltd – March 2013
Arboricultural Report carried out by JCA Ltd - January 2013

Ecological Mitigation and Management Plan – BSG Ecology - Nov 2015

A.1.2 Appendix 1 details relevant Wildlife Legislation and Appendix 2 the Operational Schedules.

A.2 **Timing**

This Management Plan will become operational on completion of the landscape construction works.

The operations described cover an initial 5 year period. Longer term management will need to be reviewed at the end of this period to ensure that the management objectives are being met.

B MANAGEMENT RESPONSIBILITIES

B.1 The operations detailed within this management document are intended to instruct the appointed Landscape Contractor and subsequent Management Company to carry out the specified maintenance operations to achieve a healthy, visually attractive landscape structure to the development.

B.1.2 After a 12 month Rectification Period during which the Landscape Contractor will be liable for major failures of shrub planting as directed by the Landscape Architects, the householder will assume responsibility for the future maintenance of the planting within their own garden area.

B.1.3 The areas of Public Open Space will be maintained by the Landscape Contractor responsible for the original planting until the end of the Rectification Period and until such a time as it is handed over to the appointed Management Company for ongoing maintenance.

B.1.4 For ease the Management Company and the original Contractor will both be referred to as The Contractor going forward.

MANAGEMENT AIM AND OBJECTIVES

B.2 Landscape Vision

The 'Landscape Vision' is the term given to what it is intended will be the outcome of the management of the site. It is made up of various elements (visual, ecological and recreational) which are described separately below but which are intrinsically linked and must work in harmony in order to achieve a satisfactory outcome.

B.2.1 Visual

The site shall be managed to provide a visually attractive landscape setting for the residential development which both frames and filters views into the site and that is in keeping with the landscape character of the area.

B.2.2 Ecological

The site shall be managed to ensure that the native species, tree and shrub planting establish well to provide a diverse wildlife habitat.
This shall underpin both what and how operations are carried out throughout the site.

The ecological objectives for the long-term management, maintenance and monitoring of the habitats comprise the requirements to:

- Manage the new planting to develop mature, healthy trees and a strong buffer to the site frontage.
- Maintain the new hedgerows with a bushy growth habit and ensure they remain attractive and complementary to the surrounding habitat.

- Minimise the potentially adverse environmental impacts resulting from any management operations on site including minimising the use of herbicides and pesticides.
- Ensure that pruning and trimming is ONLY undertaken outside the bird nesting season (generally accepted as being 1st March to 31st July but can be longer depending on the species) AND, where feasible, ensuring that the food value of the native vegetation is maximised by aiming to carry out any pruning or trimming in late winter (January or February) or, where ground conditions or other mitigating circumstances prevent this, then as late as possible in the Autumn in order to retain nuts and berries as winter food for the wildlife.
- Carry out management operations to protected habitat areas in accordance with the Ecological Mitigation and Management Plan
- Maintain and enhance the cultural and landscape value of the site by ensuring that the habitat management incorporates visual amenity benefits.

B.2.3 Recreational

The open spaces will be managed to provide attractive and useable informal and equipped open spaces, to be used by the residents and wider public.

B.3 SMART Objectives

B.3.1 Private Areas

Following completion of planting in private garden areas the planting will be maintained by the Contractor in accordance with the specification and Schedule of Works until handover to the resident at the time of purchase. The planting at time of handover should be healthy and weed free. (B.1.2)

B.3.2 Public Areas

Planting within Public Areas will be maintained in accordance with best practice guidelines and the specification in subsequent sections.

New Trees – shall be maintained in good health

New Ornamental Planting – shall be maintained to achieve all year round interest and colour. Areas of shrubs shall **not** be maintained at a uniform height with a hedge trimmer but maintained to allow the individual form of the shrub species to develop.

Hedges – Ornamental hedges shall be maintained with an aim of establishment by Year 5. Native hedges shall be maintained and shaped to create established young hedgerows by the end of the first 5 year period.

B.4 Best Practice Guidelines

In order to achieve these aims and objectives in a safe, environmentally responsible and sensitive manner there are a series of good practice

guidelines which should be observed. Such good practice seeks to minimise the potential for negative impact on the environment and the general public. They are detailed below, in no order of ranking. Reference should also be made to the relevant legislation set out in Appendix 2.

- Ensuring that all operatives are suitably qualified, certified and competent to carry out the specific task or are supervised by such a person.
- Ensuring that all works are carried out in accordance with all relevant legislation; British and European standards; good horticultural and arboricultural practice and that the required risk assessments are undertaken and documented as necessary before carrying out works.
- Ensuring that all operations are carried out at the appropriate times of year during suitable weather and ground conditions to minimise adverse impacts on the existing vegetation and ground conditions.
- Ensuring that all tools and equipment are fit for purpose and appropriate for the particular job and site conditions. The Contractor shall allow the consultant Landscape Architect to inspect all machinery and tools intended for the Aftercare Works prior to its being brought to site if required. The use of heavy plant or machinery is to be minimised to reduce trampling of vegetation and ground compaction.
- Ensuring the safety of all members of the public during operations on site. Using interpretative signage to inform the public of operations on site where necessary and particularly where those operations are considered sensitive or may pose a danger to the public.
- Ensuring that all waste (not retained or re-used on site and including any arising in connection with the approved use of chemicals) is disposed of in accordance with the relevant Waste Management Regulations.
- Monitoring operations on site and keeping records of what was carried out, when and what observations were noted which may need immediate action or need to feed into future reviews of the management plan.

B.5 Chemical Control

When chemical compounds/herbicides are to be used, the Contractor shall ensure that all operatives have read and follow carefully the instructions on the manufacturer's label.

The Contractor shall also consult the 'Recommendation for Safe Use of Chemical Compounds Used in Agriculture and Food Storage' published by DEFRA, Fisheries and Food: Safety Pesticides and Infestation Control Division, London SW1, and implement recommendations as necessary.

The Contractor shall submit the name of the chemical compound/herbicide, its supplier, a breakdown of its constituents, the mode and recommended rate of application and any species susceptibility for the Landscape Architect's consideration. Approval by the Landscape Architect for the use

of a particular chemical compound/herbicide shall, in no way, relieve the Contractor of his contractual obligations.

All chemical compounds/herbicides used shall be kept safe at all times on site. Empty containers must be removed from site and disposed of safely.

B.6 Control of Invasive Species

If any *invasive* or *injurious plants* are identified on site, the appropriate method of control shall be implemented, in accordance with relevant best practice and the Environment Agency recommendations with the aim of total eradication within 3 years.

The Wildlife & Countryside Act 1981 places a legal responsibility on land owners / land managers to control any *invasive, non-native plant* and *animal species* which have been identified as having 'the ability to spread causing damage to the environment, the economy, health or the way we live'. This responsibility also extends to native plants which are deemed to cause a problem to farming productivity. These are termed *injurious weeds*.

The list of plant and animal species which have been identified is listed in Schedule 9 of the ACT.

The legal duty placed on land owners does not oblige the land owner to remove or treat the invasive or injurious species but requires that the land owner does not:

- Allow invasive plants to spread onto adjacent land – the owner of that land has the right to take legal action if this occurs
- Plant or encourage the spread of invasive plants outside your property – this can include moving contaminated soil from one place to another or incorrectly handling and transporting contaminated material and cuttings

C MANAGEMENT OPERATIONS

NOTE: All pruning and hedge trimming shall take place during September-November, outside the nesting season, to prevent the disturbance of nesting birds.

C.1.0 STANDARD TREES

C.1.1 The Contractor shall maintain an area of 1000 mm in diameter weed-free around each staked tree.

Where approved chemical compounds/herbicides are used, the Contractor shall remove and dispose of off-site, dead surface matter following application and dieback of weed growth within fourteen (14) days, or as directed by the Landscape Architect.

C.1.2 The trees shall be maintained at all times and the Contractor shall check all stakes and ties regularly. Adjustment to conform to stem growth and to prevent chaffing and renewal of stakes or ties shall be allowed for in the Contractor's rates (excluding vandalism).

C.1.3 The Contractor will inspect and ensure that trees remain firm and well secured after frost heave, strong winds and other ground disturbance. 'Collars' at the base of the trunks created by tree movement shall be broken up by forking and backfilling with topsoil as necessary and refirmed.

C.1.4 The Contractor shall apply a slow release fertiliser to the base of each standard tree. For the first 3 years, in March/April of each year, fertiliser shall be planted at the following rates:

a) Extra Heavy Standards, Heavy Standards, Selected Standards & Standards ..... 200 gms/Tree
b) Light Standards & Feathered Trees ..... 100 gms/Tree
c) Specimen Plants, Transplants & Shrubs (in pits) ..... 50 gms/Plant
d) Plants in Shrub Beds & Hedgelines ..... 25 gms/Plant

C.1.5 The Contractor shall prune all dead or damaged branches in accordance with 4.0. Some wood resulting from these prunings can be left in small piles in areas beneath existing and establishing native hedgerows.

C.1.6 Watering shall be carried out as specified under watering section 7.0.

C.1.7 All failures shall be replaced annually in accordance with clause 8.0.

C.1.8 Trees positioned in shrub beds shall have their tree pits maintained as for shrub beds, as specified in clause 3.

C.1.9 For trees positioned in ornamental lawn areas where tree pits have been returfed or seeded, Aftercare Work shall be as specified in grass maintenance/mowing.

C.2.0 ORNAMENTAL SHRUB PLANTING

Use of Chemicals and Machinery

Reference should be made to B5.

Maintenance of Shrub Beds

C.2.1 Shrub beds, including staked trees and specimen plants, shall be kept free from weed or grass. Forking or hoeing shall be carried out to remove noxious annual and perennial weed roots entirely from the shrub bed before the formation of seed heads. Removal of weed foliage only shall not be permitted.

All weed material resulting from the operation described above shall be collected from the shrub beds and removed from site by the Contractor.

C.2.2 Where herbaceous material or bulbs are incorporated into shrub beds the use of chemical compounds/herbicides shall not be permitted and the Contractor shall allow in his rates for hand cultivations only.

C.2.3 Following frosty weather and strong winds, the Contractor shall inspect shrub beds and firm any plant that has been loosened.

C.2.4 The Contractor shall apply a slow release fertiliser (eg Enmag or similar approved) over each shrub bed at a rate of 25 gms/shrub once a year in Spring (March/April).

C.2.5 Shrubs shall be pruned once annually to remove all deadwood, broken or damaged or crossing branches as specified in 6.0. Shrubs shall be pruned where appropriate during Years 1-3 to promote bushiness.

All arisings shall be carted off-site.

C.2.6 The Contractor shall replace all failures in accordance with clause 9.0.

C.3.0 NEW NATIVE SPECIES PLANTING

C.3.1 An area of 300 mm diameter around each plant shall be kept free from weed growth. All arisings resulting from weed control shall be removed from site.

C.3.2 Following frosty weather and strong winds, the Contractor shall inspect planting areas and firm any plant that has been loosened.

C.3.3 Annually apply a slow release fertiliser (Enmag or similar approved) to each pit in Spring at a rate of 50 gms/pit.

C.3.4 Prune all damaged or broken branches. Hard prune all shrub and understorey in Year 3 after planting to promote bushiness and thereafter annually in February to remove all deadwood, broken or damaged branches.
Native planting areas should not be cut back in the Autumn to avoid the loss

of valuable food sources for fauna. Remove all arisings from site unless directed otherwise by the Landscape Architect.

C.3.5 Replace all failures in Year 1.

C.3.6 Replace all failures in subsequent years to achieve 80% stocking rate.

C.3.7 Remove all litter.

C.4 NEW NATIVE SPECIES HEDGE PLANTING

General Maintenance Years 1-4

C.4.1 An area of 300 mm diameter around each transplant shall be kept free from weed growth. All invasive herbaceous scrubby vegetation, (eg Bramble & Nettles) and non-native or highly invasive tree species, shall be cleared and removed from site four (4) times annually.

C.4.2 Transplants shall be firmed in as necessary at each maintenance visit and particularly in Year 1 after planting after cold and frosty conditions before roots have taken hold.

C.4.3 Prune hedgerows to 450 mm in Year 3 to encourage bushiness. In Year 4 trim sides and top to begin formative pruning into an A shaped, dense hedge with a maximum height of 2 metres.
Prune only out of the bird nesting season (1st March to 31st July).

C.4.4 Ensure all standard trees planted within the hedge are suitably protected and remain undamaged.

C.4.5 Replace all failures in Year 1 in accordance with Section 10.

In Years 2-4 replace all failures as required to produce a uniformly vegetated hedge line.

C.4.6 Remove all litter/fly tipping at each maintenance visit

C.4.7 Top up mulch annually in Spring to restrict competition from grasses and herbs during Years 1-4 (See Section 7) to the original depth.

C.4.8 Do not apply fertilisers to the hedgeline or use fertilisers, manure or pesticides within 2 metres of the centre line of the hedge to prevent leaching and the growth of undesirable, competitive ruderal weeds.

General Maintenance Year 5

C.4.9 Generally aim to maintain hedges at a height of not less than 1.8 metres. Prune in Year 5 to establish the desired height and width and maintain the A shape and density of the hedges. Prune outside the bird nesting season (1st March to 31st July) and aim to cut in January or February or, where ground conditions or other mitigating circumstances prevent this, then as late as possible in the Autumn. Avoid winter cutting in order to retain nuts and berries as winter food for the wildlife.

C.4.10 Remove any non-native or competitive plants from the ground layer by hand pulling to avoid disturbance to surrounding ground and plant life and dispose of arisings off site.

C.4.11 Do not apply fertilisers to the hedgeline or use fertilisers, manure or pesticides within 2 metres of the centre line of the hedge to prevent leaching and the growth of undesirable, competitive ruderal weeds.

C.4.12 Assess the need for planting to either replace defective or failed plant material or gap up as necessary to produce a consistently uniform hedge line.

C.4.13 Remove all litter/fly tipping at each maintenance visit.

C.4.14 Assess the need for top up mulch depending on the establishment of the hedge and the desire to provide conditions suitable for development of a herbaceous ground layer.

C.5.0 EXISTING WOODY VEGETATION

C.5.1 Trees and Hedges

All existing trees and hedgerows within and on the boundaries of the site shall be maintained in a safe condition and as a reasonable visual amenity.

The existing mixed native vegetation on the southern boundary will be maintained at its existing height.
Existing hedges overhanging rear gardens shall be maintained by the Occupier following handover.

The trees shall be inspected on an annual basis by a suitably qualified arboriculturist and any recommendations for tree work shall be undertaken as required all in accordance with BS8596:2015 Surveying for Bats in Trees and Woodland.

C.6.0 PRUNING

C.6.1 All pruning work, whether on newly planted material or existing vegetation, shall be carried out in accordance with BS 3998 where applicable. Resultant wounds shall be treated with approved fungicidal sealant.

C.6.2 All pruning of trees shall be carried out between November and March inclusive unless otherwise directed in the notes below. The following operations shall be carried out:

a) All diseased tissues and any dieback shall be pruned to the nearest bud with clean wood.
b) The removal of unsightly ‘water shoots’ and epicormic growth from standard, selected standard, heavy standard and extra heavy standard trees.
c) Formative pruning to remove branches that cross, are damaged or have malformed shoots, to maintain a balanced tree crown.

C.6.3 Broken and vandalised branches shall be cut back to the next joint, removing splinter wood, and treated with an approved sealant. If the tree, in the opinion of the Landscape Architect is beyond pruning, it shall be removed by the Contractor, and the ground made good.

C.6.4 Newly planted shrubs shall only be pruned as required by the Landscape Architect. At the end of the growing season the shrubs shall be checked and all deadwood, broken or damaged or crossing branches shall be cut out.

C.6.5 Pruning of existing well established shrub material shall be carried out where indicated on the Contract Drawings and shall conform to the following:

a) Shrubs flowering in Winter shall be pruned in March subject to confirmation that there are no active birds' nests in the vegetation.
b) Shrubs flowering in March to July shall be pruned immediately after flowering subject to confirmation that there are no nesting birds in the vegetation.
c) Shrubs flowering July to September shall be cut back to old wood in January to February.
d) Rose bushes other than Species Roses shall be pruned in February to encourage basal growths and keep plants in a balanced and compact habit.
e) Pruning and removal of branches shall be carried out using sharp, clean implements to give a clean cut with one flat face. Any cuts or wounds over 20 mm in diameter are to be painted with an approved sealant.
f) The Contractor shall cut newly planted or existing hedges as indicated on the Contract Drawings and in the Schedule of Quantity. Cutting will be such as to encourage a stable shape and remove current growth rather than old wood.
g) All arisings from pruning work shall be removed from site to Contractor's own tip.

C.6.6 Ornamental hedges (Beech,evergreen and flowering evergreen) to be maintained by the future occupier at a recommended height of 1000mm.

C.7.0 MULCHING

C.7.1 The mulch to all ornamental shrub beds shall be topped up in the first Spring after planting after the completion of the early Spring maintenance visit (ie March/April) to achieve an overall depth of 50 mm.

C.8.0 WATERING

C.8.1 Watering visits, when required, shall be instructed and confirmed in writing by the Landscape Architect.

C.8.2 The following rates are given as a guideline to the Contractor for the volume of water required per visit:

Extra Heavy & Heavy Standard Trees ...45 litres per Tree
Selected Standard & Standard Trees ... 30 litres per Tree
Specimen Plants ..... 15 litres per Plant

Transplants, Shrubs, Hedging
and Herbaceous Material ..... 10 litres per Plant

(NB 4.5 litres = approximately 1 gallon).

C.8.3 The Contractor shall include in his rates for bringing to site sufficient water carts, hoses or sprinklers to provide adequate water to fulfil the above Specification. He shall also be responsible for paying all charges in connection with the supply of water required unless otherwise instructed in writing by the Landscape Architect.

C.9.0 FAILURE OF PLANT MATERIAL

C.9.1 The Contractor shall replace, at his own expense, any tree, transplant, specimen plant, shrub or herbaceous material which has died or has not developed full foliage throughout its branches during the twelve (12) months following planting. Replacements shall take place as early as possible during the planting season following the original planting period.

C.9.2 The Contractor shall subsequently make good any further failures during the following twelve (12) months if the Aftercare period is two (2) years.

C.9.3 Replacement plant material required as a result of vandalism shall be identified separately and provided by the Contractor at the rates indicated in the Schedule of Rates (if provided) or as agreed in writing between the Contractor and the Landscape Architect.

C.9.4 All replacement plant material shall conform to the original Specification unless otherwise agreed in writing between the Contractor and the Landscape Architect.

C.9.5 The Contractor shall make good at his own expense all necessary repairs to levels, grassed areas and paving required because of plant replacements.

C.10.0 GRASSED AREAS

C.10.1 Short mown Amenity Grass

Grassed areas shall be mown as indicated on the Contract Drawings and in the Schedule of Quantity. Litter shall be collected prior to each cut. The disposal of grass cuttings by the chosen machine shall not result in cut grass being left in rows; rather the mowers shall reduce the cuttings to fine particles to be spread around to decompose rapidly. Works around newly planted trees shall be carried out by hand-tool rather than mechanically.

The Contractor should note that mowing includes for cutting the grass, trimming grass edges, trimming around the base of trees, manholes, street lights, signposts, up to the edges of paving, fencing and other boundaries etc to keep the total area in a neat and tidy condition at all times.

Short amenity grass shall be maintained at a height between 25 and 65mm.

In drought conditions mowing operations shall continue only so long as grass growth continues to reach maximum allowable height. In very wet

conditions all operations shall cease until conditions allow operations to continue without either damaging the surface levels and contours of the grassed areas or leaving divots from mowing machines. Alterations required to the Aftercare Programme due to special weather conditions shall be agreed with the Landscape Architect in writing.

C.10.2 **Long grass / wildflower grass areas**

To be successful, initial maintenance on wildflower grass areas must be carefully managed to ensure the creation of suitable conditions for the wildflower seeds to establish without being outcompeted by the grass nurse crop. The following cutting regime is a guideline and the actual cutting programme adopted will dependant on the growth in each situation, this in turn being directly by soil fertility, rainfall and ground temperature. The cutting regime will differ, depending on whether the sward is established in Autumn or Spring.

C.10.2.1 *Spring Establishment:*

Year 1

1st cut to 4-7 cm approx 6 weeks after sowing if sufficient material has established

2nd cut to 4-7 cm approx in May (when sward height exceeds 10 cm)

3rd cut to 4-7 cm in September/October

All arisings to be removed from site.

Year 2 (where cutting is carried out)

1st cut to 4-7 cm March/April

Final cut to 4-7 cm end September/October.

All arisings to be removed from site.

C.10.2.2 *Autumn Establishment:*

Year 1

1st cut to 4-7 cm in March (if sufficient material)

2nd cut to 4-7 cm in early May

3rd cut to 4 cm in September

All arisings to be removed from site.

Year 2 (where cutting is carried out)

1st cut to 4-7 cm March/April

Final cut to 4-7 cm end September/October.

Years 2/3 to 5

Meadow and scrubby grassland to be managed in accordance with the Ecological Mitigation and Management Plan.

C.10.3 **Fertiliser** (short mown amenity grass areas only)

The Contractor shall supply and evenly spread over the specified areas with an approved distributor, a post-emergent fertiliser. The fertiliser shall be compounded granular free flowing material and shall supply the ratio of plant nutrients N:P:K at 2:1:1 for Spring Dressings and N:P:K at 1:1:1½ for Autumn Dressings. They shall be spread at a rate of 35 gms/m^2. No fertiliser with the insoluble phosphate representing more than 10% of the total phosphate will be acceptable.

C.10.4 **Weedkiller**

The Contractor shall supply and apply a suitable selective herbicide to grassed areas, to be applied only on the written instruction of the Landscape Architect. The herbicide shall be approved by the Landscape Architect and applied at the rate and in accordance with the manufacturer's instructions. The Contractor shall only spray during calm conditions, when rain is not imminent and not during drought conditions. Three days shall elapse before recommencement of mowing operations.

C.10.5 **Remedials**

The Contractor shall be responsible for remedial works on grassed areas within the Contract boundary, disturbed by cultivations, planting or other operations carried out by the Contractor in the execution of the Works.

In Spring and Autumn, or otherwise as instructed by the Landscape Architect, the Contractor shall re-seed any areas which fail to germinate, with approved grass seed mix. Topsoil shall be cultivated and aerated by forking as necessary to tie in with adjacent levels to promote good sward establishment.

Returfing of damaged or bare areas identified by the Landscape Architect shall comply with all good horticultural practice. The Contractor shall remove or make up all areas to a level sufficient to take replacement turves. The base of the area will be lightly broken up and levelled prior to final placement of the turf.

C.11.0 PLAY AREA AND PUBLIC OPEN SPACE

The play area will be installed as the site nears completion in order to prevent Health and Safety issues during the construction phase. Once installed the play area will be maintained in accordance with the Schedules at Appendix 2.

C.11.1 Prior to handover to the Management Company the equipped Play Space in the Central POS shall be inspected on a daily, weekly and monthly schedule

in accordance with NPFA and ROSPA guidelines.

C.11.2 The Play Area/equipment and safety surfacing shall be inspected annually by an independent specialist to ensure the long term safety of the site, equipment and ancillary items. This will also meet legal and insurance responsibilities as well as complying with the requirements of EN 1176 (European Playground Standard)

C.11.3 **Fencing and Gates**

Inspect all fences, railings and gates for any necessary repair, on each maintenance visit.

C.11.4 **Street Furniture**

Inspect all seats and litter bins for defects / damage. Report any defect or damage to Client and seek approval for repair / replacement as required.

C.11.5 **Footpaths**

Where indicated in Schedules of Quantity, footpaths shall be treated with a total weed killer in accordance with the manufacturer's instructions. The chemical compound/herbicide shall be approved by the Landscape Architect and of an appropriate type for the conditions on site and applied in April-June.

C.11.6 **Litter**

Litter shall be collected and carted off site during each maintenance visit.

C.11.7 **Planting**

Planting beds around the play area and POS shall be assessed once the play area has been in use for 6 months. Any areas of planting that are shown to be vulnerable are to be replaced with more robust species or removed all together and replaced with grass or hard surfacing as appropriate.

C.11.8 **Habitat Boxes**

Bird Boxes
Nest boxes should be cleaned annually in the autumn. It is important not to clean out nest boxes before August as boxes may still be occupied. Wait until autumn and then remove the contents of the box, checking first that the box is definitely unoccupied. Use a small brush or scraper to remove debris from the corners. The operator shall not wait until the winter to clean out nest boxes as birds may already be roosting in them.

C.12 ECOLOGICAL ENHANCEMENTS

C.12.1 Tree Replacement

In the event that any of the existing mature trees require to be replaced, such replacements shall be native and of a suitable species, size and form for the location, all as agreed between the Client, consultant Landscape Architect, Ecologist and Arboriculturist and Local Authority as required.

Existing hedgerows to be retained will be gapped up as necessary using a similar palette of species. New sections of native hedgerow, native scrub planting around the site will consist of locally appropriate planting mixes and within the housing development itself ornamental species have been selected which have wildlife value in the form of berries, fruits and flowers.

C.12.2 Japanese Knotweed

The area of Japanese Knotweed identified beyond the site boundary shall be monitored for encroachment into the site and should new growth be identified, the area shall be appropriately treated with a translocated weedkiller.

C.12.5 Habitat Protection

The Phase 1 Ecological Report records existing habitats of existing trees and hedgerows.
Site operative should be made aware of the habitats that are to be protected and understand the Tree Protection methods that are to be employed during construction.

D REASSESSMENT OF SCHEDULES OF WORKS

D.1 Monthly monitoring visits by the Management Company will be made to determine whether the Management Objectives (Section B) are being met. Any operations falling short of the objectives will be brought to the attention of the Supervisor for the Management Company's operatives.

D.2 An annual walkover assessment will be made by the Management Company in conjunction with a qualified Arboriculturist, Ecologist and Landscape Architect as required. Any recommendations shall be carried out within three (3) months of the report, unless any trees are identified as potentially dangerous and in need of urgent attention. In this instance, works shall be carried out Immediately.

D.3 Re-assess the need for adjustment of the operational schedules annually following the annual walkover and undertake to amend the document as required.

D.4 At the end of the first 5 year period the management operations will be reviewed and assessed by all parties for their appropriateness and revised as necessary to provide an effective plan going forward.

APPENDIX 1:
Relevant Wildlife Legislation

Breeding Birds

All wild birds are protected under the ***Wildlife & Countryside Act 1981*** (as amended) during the breeding season (which is normally assumed to be from the 1st March to 31st July).

Bat species

All British bat species and their roosts are legally protected under the ***Wildlife & Countryside Act 1981*** (as amended), through inclusion in Schedule 5 and under the ***Conservation of Habitats and Species Regulations 2010*** which implements the EC Directive 92/43/EEC in the UK. Under the legislation, it is an offence to intentionally kill, injure or capture bats, deliberately disturb bats and damage, destroy or obstruct access to bat roosts. Since the introduction of the ***Countryside and Rights of Way (CROW) Act*** in ***2000*** it is also an offence to recklessly harm or disturb bats in their roosting places.

Reptile species

The four common reptile species (Common Lizard, Grass Snake, Adder and Slow-worm) are listed under Schedule 5 of the ***Wildlife & Countryside Act 1981*** (as amended), in respect of Section 9(5) and part 9(1). This protection was extended by the Countryside and Rights of Way (CROW) Act 2000. This legislation makes it an offence to:

Intentionally or recklessly, kill or injure any of the above species and / or;
Sell, or attempt to sell, any part of the species, alive or dead.

The Sand Lizard and Smooth Snake receive greater protection under both the ***Wildlife & Countryside Act 1981*** (as amended) and from the Conservation of Habitats and Species Regulations 2010 which gives them full protection under Regulation 39.

The legislation protects these species from:

deliberately or intentionally killing and capturing (taking) or intentional injuring;
deliberately disturbing;
deliberately taking or destroying eggs;
damaging or destroying a breeding site or resting place, or intentionally damaging a place used for shelter and protection;
intentionally obstructing access to a place used for shelter; and
keeping, transporting, selling or exchanging; offering for sale or advertising.

Water Vole

Since April 2008 the Water Vole has received full protection under Section 9 of the ***Wildlife & Countryside Act 1981*** (as amended). Legal protection makes it an offence to:-

intentionally kill, injure or take (capture) a water vole;
possess or control a live or dead water vole or any part of a water vole;
intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb a water vole while they are using such a place;
sell, offer for sale or advertise for live or dead water voles.

RELEVANT HEALTH & SAFETY LEGISLATION

Health & Safety at Work Act 1974 (and amendments)
HSE's Managing Health and Safety in Forestry

RELEVANT PESTICIDES, BIOLOGICAL CONTROL AGENTS LEGISLATION

Control of Pesticides Regulations 1986 (COPR), as amended by the Control of Pesticides (amended) Regulations 1997 (COP(A)R)
Control of Substances Hazardous to Health 2002 (COSHH)
Waste Management (Duty of Care) Regulations 2002
Waste Management Regulations 1996
Waste Management Licensing Regulations 1994 (plus carious amendments)
Environment Protection Act 1990

APPENDIX 2:
Operational Schedules

Operation	Year					Proposed Frequency	Restrictions
	1	2	3	4	5		
Standard Trees - Section C.1.0							
Maintain tree pits weed free	✓	✓	✓	✓	✓	6 visits per year	Avoid the use of chemicals in sensitive / nature conservation areas
Fertilise trees	✓	✓	✓			Once annually	In March or April
Water trees	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section 8.0)
Check firmness of trees in tree pits and re-firm as required	✓	✓	✓			At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)
Prune damaged branches	✓	✓	✓	✓	✓	As required	Prune as soon as identified
Check tree stakes & ties & repair / replace	✓	✓	✓			Every 3 months in perpetuity	Replace with materials to existing specification and replace as soon as identified
Check establishment of trees and remove stakes as required			✓	✓		As required. Aim to remove all stakes by end of initial 5 year period	
Replace defective & failed trees	✓	✓	✓	✓	✓	Once annually in planting season	In nearest available planting season, replacing all failures in Year 1 (the first year planting) and thereafter as agreed at the annual walkover (See Section D)
Top up mulch to tree pits in grassed areas	✓	✓				Once annually in perpetuity	In March or April
Litter pick and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Dispose of to tip in accordance with relevant Waste Management Regulations

Ornamental Shrub Beds - Section C.2.0							
Maintain shrub beds weed free	✓	✓	✓	✓	✓	6 visits per year in perpetuity	Avoid the use of chemicals in areas containing herbaceous plant material or bulbs
Apply slow release fertiliser	✓	✓	✓	✓	✓	Once annually	In March or April
Check firmness of shrubs in shrub bed and re-firm as required	✓	✓	✓	✓	✓	At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)
Water as required	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section 8.0)
Prune damaged shrubs	✓	✓	✓	✓	✓	As required	Prune as soon as identified
Replace defective & failed plant material	✓	✓	✓	✓	✓	Once annually in planting season	Varied responsibility and replacement requirements dependant on Year of replacement & area (See Section 9.0)
Top up mulch	✓	✓	✓	✓	✓	Once annually in perpetuity	In March or April
Litter pick / remove flytipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife

New Native Planting - Sections C.3.0 and C.4.0							
Maintain 300mm diameter area around each plant weed free and remove undesirable herbaceous or woody species	✓	✓	✓	✓	✓	Four times annually	Avoid the use of chemicals in areas within the catchment area of water bodies
Control the spread of any invasive or undesirable weed	✓	✓	✓	✓	✓	As required in perpetuity	Before flowering / seeding and in accordance with specific requirements for the particular weed species
Check firmness of plant material in ground and re-firm as required	✓	✓	✓	✓	✓	At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)

Hard prune hedges to 450mm height			✓			Once in Year 2	Out of bird nesting season
Continue pruning to achieve desired height and width				✓	✓	Once annually in perpetuity	Out of bird nesting season
Water as required	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section 8.0)
Replace defective & failed plant material	✓				✓	Once annually in planting season	In nearest available planting season, replacing all failures in Year 1 (the first year planting) and thereafter as agreed at the annual walkover (See Section D)
Top up mulch	✓	✓				Once annually	In March or April
Litter pick / remove flytipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife and dispose of arisings to tip in accordance with relevant Waste Management Regulations
Existing Woody Vegetation – Section C.5.0							
Carry out recommendations made by Arboriculturist at annual walkover	✓	✓	✓	✓	✓	As required / agreed in perpetuity	Out of bird nesting season
Remove any failing / dead material for Health & Safety or visual reasons (otherwise leave in situ)	✓	✓	✓	✓	✓	As required in perpetuity	Out of bird nesting season
Carry out initial management to existing boundary hedgerows	✓						
Carry out ongoing annual trimming of existing hedgerows until handover to occupant	✓	✓	✓	✓	✓	Until house is occupied	

Litter pick / remove flytipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife and dispose of arisings to tip in accordance with relevant Waste Management Regulations
Grass Areas – Section C.10.0							
Maintain amenity grass	✓	✓	✓	✓	✓	As required between height tolerances as specified in perpetuity	
Maintain wildflower grass areas during the early establishment period	✓	✓				Up to 3 times for newly established areas in Year 1. Twice in Year 2 (as specified)	Remove arisings
Maintain wildflower meadow area			✓	✓	✓	Once annually Sept/October in perpetuity	Remove arisings
Apply fertiliser to amenity grass areas only	✓	✓	✓	✓	✓	Once annually in perpetuity	Spring or Autumn
Apply selective herbicide	✓	✓	✓	✓	✓	Once annually in perpetuity	As required and instructed by the Landscape Architect
Reinstate any damaged areas of amenity grass as required by re-seeding or re-turfing		✓	✓	✓	✓	Annually in season in perpetuity	
Play Area and Public Open Space – Section C.11.0							
Assess success of planting around play area	✓					After first 6 months from installation	Replace any area of vulnerable planting with more robust species, grass or hard surfacing as appropriate
Check play equipment and safety surfacing for damage	✓	✓	✓	✓	✓	On each visit in perpetuity	Report fault to Client and seek instruction to repair. Make safe until repair carried out.
Check fences and gates for	✓	✓	✓	✓	✓	On each visit in perpetuity	

damage							
Apply weedkiller to footpath	✓	✓	✓	✓	✓	April-June in perpetuity	Weed killer to be approved by Landscape Architect.
Clean habitat boxes	✓	✓	✓	✓	✓	Annually in Autumn until handover to occupant	
Collect all litter and remove from site	✓	✓	✓	✓	✓	On each visit in perpetuity	
Management Plan Review – Section D							
Carry out Monthly Monitoring visit	✓	✓	✓	✓	✓		Assess the need for actions and instruct operators
Carry out annual walkover	✓	✓	✓	✓	✓		Act on recommendations for works as required and adjust the operational schedules where required.
Undertake necessary survey work with specialist consultants, review this document and prepare new plan as required					✓	Once	Consultation with Client, consultant Landscape Architect, Ecologist, Arboriculturist and Management Company

APPENDIX 3:

R/1667/1D Landscape Masterplan
R/1667/2A POS Details
R/1667/3
R/1667/4
R/1667/6 NEAP

KEY

- Existing trees to be retained (refer to tree survey & report by JCA Ltd for details)
- Existing trees to be removed
- Existing grassland to be retained
- Proposed Extra heavy standard (14-16cm girth) tree
- Proposed heavy standard (12-14cm girth) tree
- Proposed selected standard (10-12cm girth) tree
- Proposed standard (8-10cm girth) tree
- Proposed light standard (6-8cm girth) tree
- Proposed Beech hedging
  Proposed evergreen flowering hedge (Escallonia)
  Proposed evergreen hedging (Laurel)
- Proposed native hedge
- Proposed mixed species native trees and shrubs
- Proposed mixed species native shrub planting
- Proposed ornamental shrub planting
- Proposed turf
- Proposed grass seed to rear gardens
- Proposed amenity grass seed
- Proposed wildflower grass seed
- Proposed 1800mm high close boarded timber fencing (detailed by others)
- Proposed 1800mm high brick wall / fence (detailed by others)
- Proposed division fence (detailed by others)
- Proposed 1100mm high vertical metal railing (detailed by others)
- Proposed 450mm high timber trip rail (detailed elsewhere)
- Proposed compacted stone footpath (detailed elsewhere)
- Proposed block paving (detailed by others)
- Proposed moundling (maximum 1.5m above prevailing ground levels)

60.1m
63.3m
96.8m
DEARNE HALL ROAD
DEARNE HALL FOLD
B 6428
EI Sub Sta
EXISTING POND
NEW POND
5m maintenance access strip kept clear of scrub
40m STAND OFF DISTANCE
YOUTH PROVISION
JUNIOR PROVISION
NEAP
Church
Church Car Park
overhead power lines
wire fence
stone track
galvanised security fence
hawthorn/blackthorn dense underscrub
dense undergrowth
saplings (birch etc)
random tipping (building waste etc)
dense saplings
random tipping (building waste etc)
tarmac
Rose Hill

NOTES

PROTECTION OF EXISTING VEGETATION

The majority of the existing trees and scrubby vegetation to the boundaries shall be retained and protected where necessary during the works by 2.3m high metal mesh fencing secured to a scaffold tube framework, all in accordance with BS 5837:2012, The protected area shall remain an exclusion area throughout the construction period and suitable signs shall be fixed to the fencing at no less than 10 metre intervals (or at any change in direction) stating that the area is a tree protection exclusion zone, The fencing shall remain fixed in place through out the construction period. No chemicals or building materials which may potentially contaminate the soil shall be stored within 5metres of the protected area and no bonfires shall be lit within 5m of the canopy spread. In the event that any excavation work is required within the protected area for the erection of garden fencing, for example, this shall be carried out by hand. Where retained vegetation needs to be cut back/ lifted to enable fencing to be erected, this shall be done in accordance with the requirements of BS3998:2010 by qualified and certified tree surgeons and overseen by the consultant Landscape Architect as required.

PROPOSED TREE PLANTING

In order to protect the rural character on the southern and western boundaries, at the new settlement edge, new tree planting will consist of predominantly mixed native species chosen to complement the existing composition as well as be in keeping with the scale of the garden areas. On the northern boundary with Yew Tree Lane, tree planting will be carried out within the front garden areas to the new dwellings to extend the retained line of trees to the south-eastern corner in front of proposed plots 1-3.

Within the site tree planting of ultimately large growing native tree species (or their cultivars) is proposed around the central area of open space, This will, in conjunction with the retained trees and new road frontage and rear garden planting, help to soften the built form and filter views into the site from the south, south-west and north. e, trees will be planted into front gardens to soften the building line and filter views of the development from this aspect.

Trees will be selected from the following Indicative but not exhaustive list.

Species to be chosen from:

- Acer campestre (Ac)
- Acer campestre 'Streetwise' (AcS)
- Acer platanoides (Ap)
- Aesculus hippocastanum (Aeh)
- Alnus glutinosa (Ag)
- Alnus incana (Al)
- Amelanchier lamarkii (Al)
- Betula pendula (Bp)
- Betula pubescens (Bpub)
- Carpinus betulus (Cb)
- Carpinus betulus 'Frans Fontaine' (CbFF)
- Corylus colurna (Cc)
- Fagus sylvatica (Fs)
- Malus sylvestris (Ms)
- Pinus sylvestris (Psyl)
- Prunus padus (Ppad)
- Prunus padus 'Albertii' (PpA)
- Prunus serrula (Pse)
- Pyrus calleryana 'Chanticleer' (PyC)
- Quercus robur (Qr)
- Quercus rubra (Qrub)
- Sorbus aria (Sa)
- Sorbus aucuparia
- Sorbus 'Embley' (Se)
- Sorbus 'Joseph Rock' (Sj)
- Tilia cordata (Tc)
- Tilia cordata 'Greenspire' (TGs)
- Tilia x europaea (Txe)

Foundation design of new buildings shall accommodate proposed tree planting in accordance with NHBC guidelines.

LANDSCAPE PROPOSALS TO PUBLIC OPEN SPACE AREA

The proposed Public Open Space (POS) for this development runs around the eastern and southern boundaries of the residential area. This drawing shows the proposals for the whole of the POS southern boundary and part of the proposals for the eastern side of the development. For the remaining proposals on the eastern boundary please refer to FDA drawing nr. R/1667/2.

It is proposed that the existing grassland and woody vegetation be retained along the south and south-east of the POS since this part of the site can remain unaffected by the development. The proposals for the southern area area are ultimately to create a naturalistic landscape into which new blocks of native trees and shrubs are introduced along the residential road to soften the development and provide a transition between the open space and the built form. An informal compacted stone path will provide access though this linear space linking through to the larger area of open space to the east of the development. A mown edge to the footpath will define the route through the space and provide areas for passive leisure and seating. Beyond the mown edge any areas disturbed by the works will be sown with a wildflower meadow grass to complement the existing sward.

PROPOSED TREE PLANTING

In order to protect the rural character of this part of the development, new tree planting will consist of a relatively small palette of native species based on the composition of the existing cover together with a small number of additional native species to increase the biodiversity and habitat vaue of the area. Trees will be planted as either extra heavy standard or selected standard to provide a degree of instant maturity.

Trees will be selected from the following indicative but not exhaustive list.

Acer campestre (Ac)

- Acer platanoides (Ap)
- Aesculus hippocastanum (Aeh)
- Alnus glutinosa (Ag)
- Alnus incana (Al)
- Amelanchier lamarkii (Al)
- Betula pendula (Bp)
- Betula pubescens (Bpub)
- Carpinus betulus (Cb)
- Corylus colurna (Cc)
- Crataegus monogyna (Cm)
- Fagus sylvatica (Fs)
- Malus sylvestris (Ms)
- Populus nigra (Pn)
- Prunus avium (Pa)
- Prunus padus (Ppad)
- Prunus padus 'Albertii' (PpA)
- Prunus serrula (Pse)
- Quercus robur (Qr)
- Quercus rubra (Qrub)
- Sorbus aria (Sa)
- Sorbus aucuparia
- Tilia cordata (Tc)
- Tilia cordata 'Greenspire' (TGs)
- Tilia x europaea (Txe)

For trees planted near proposed dwellings the foundation design of the new buildings shall accommodate proposed tree planting in accordance with NHBC guidelines.

Rev.D: Amendment to Planning Layout Rev.C	Jan 16
Rev.C: Addition of sight lines and adjustment of tree positions as necessary	Dec 15
Rev.B: Amended to latest client layout Rev.E	Dec 15
Rev.A: Amended to latest client layout	Sep 15

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Low Barugh, BARNSLEY

drawing title: LANDSCAPE MASTERPLAN

scale	date	drawn by	drawing no
1:500	Dec. 2014	EW/JT	R/1667/1D

NOTES

PROTECTION OF EXISTING VEGETATION

The majority of the existing trees and scrubby vegetation to the boundaries shall be retained and protected where necessary during the works by 2.3m high metal mesh fencing secured to a scaffold tube framework, all in accordance with BS 5837:2012. The protected area shall remain an exclusion area throughout the construction period and suitable signs shall be fixed to the fencing at no less than 10 metre intervals (or at any change in direction) stating that the area is a tree protection exclusion zone. The fencing shall remain fixed in place through out the construction period. No chemicals or building materials which may potentially contaminate the soil shall be stored within 5metres of the protected area and no bonfires shall be lit within 5m of the canopy spread. In the event that any excavation work is required within the protected area for the erection of garden fencing, for example, this shall be carried out by hand. Where retained vegetation needs to be cut back/ lifted to enable fencing to be erected, this shall be done in accordance with the requirements of BS3998:2010 by qualified and certified tree surgeons and overseen by the consultant Landscape Architect as required.

LANDSCAPE PROPOSALS TO PUBLIC OPEN SPACE AREA

The proposed Public Open Space (POS) for this development runs around the eastern and southern boundaries of the residential area. This drawing shows the proposals for the whole of the POS on the eastern side and a small part of the proposals on the southern boundary. For the remaining proposals on the southern boundary please refer to FDA drawing nr. R/1667/1A.

The proposals for the areas of POS proposals are based on the desire to create a landscape which protects and enhances the existing areas of vegetation and grassland. Groups of native trees and shrubs will be selected from the list below in concultation with the ecologist and chosen to reflect the prevailing species composition. This planting will extend the woody vegetation throughout the area creating wildlife links with, and between, the existing planted areas. These groups of vegetation are set amongst broad swathes of wildflower meadow grassland to the west whilst retaining and protecting the existing great crested newt habitat to the east.
A dry basin will be provided to the western edge of the POS to provide surface water attenuation. The indicative location for this is shown on the drawing and the basin shall be subject to a separate design by the consultant Engineers.
An equipped play space will be incorporated along with youth facility to provide for both formal and informal play and a compacted stone path provides access through the POS and into the NEAP.

PROPOSED TREE PLANTING

In order to protect the rural character of this part of the development, new tree planting will consist of a relatively small palette of native species based on the composition of the existing vegetation together with a small number of additional native species to increase the biodiversity and habitat value of the area. Trees will be planted as either extra heavy standard or selected standard to provide a degree of instant maturity.

Trees will be selected from the following indicative but not exhaustive list.

- Acer campestre (Ac)
- Alnus glutinosa (Ag)
- Betula pendula (Bp)
- Betula pubescens (Bpub)
- Carpinus betulus (Cb)
- Crataegus monogyna (Cm)
- Malus sylvestris (Ms)
- Populus nigra (Pn)
- Prunus avium (Pa)
- Prunus padus (Ppad)
- Quercus robur (Qr)
- Sorbus aria (Sa)
- Sorbus aucuparia
- Tilia cordata (Tc)
- Tilia cordata 'Greenspire' (TGs)
- Tilia x europaea (Txe)

For trees planted near proposed dwellings the foundation design of the new buildings shall accommodate proposed tree planting in accordance with NHBC guidelines.

DETAILED PLANTING DESIGN

Detailed planting design for the area will be provided alongside detailed design for the NEAP on separate drawings.

KEY

- Existing trees to be retained (refer to tree survey & report by JCA Ltd for details)
- Existing trees to be removed
- Proposed Extra heavy standard (14-16cm girth) tree
- Proposed selected standard (10-12cm girth) tree
- Proposed mixed species native trees and shrubs
- Proposed mixed species low native shrub planting
- Proposed ornamental shrub planting
- Proposed mixed native species hedge
- Proposed amenity grass seed
- Proposed wildflower meadow grass seed
- Existing tussocky grass and scrub to be retained
- Proposed mowing line
- Proposed compacted stone footpath (detailed elsewhere)
- Proposed 1100mm high vertical bar railings and self closing gates to NEAP (detailed elsewhere)
- Proposed 450mm high timber trip rail (detailed elsewhere)

Rev.A: Amendment of POS to accommodate Ecological requirements for protection and enhancement of the Great Crested Newt habitat — Oct 15

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client: Barratt Homes Yorkshire West

project: Residential Development

Low Barugh, BARNSLEY

drawing title: EASTERN AREA OF PUBLIC OPEN SPACE MASTERPLAN

scale	date	drwn by	drawing no
1:500	July 2015	JT/SF	R/1667/2A

TREE SCHEDULE

SPECIES	Ht in m / Girth in cm	NUMBERS REQUIRED 2.7-3.0	3.0-3.5	3.5-4.0	4.0-4.5
	Ht in m	2.7-3.0	3.0-3.5	3.5-4.0	4.0-4.5
	Girth in cm	8-10	10-12	12-14	14-16
Acer Campestre		2	5	-	13
Acer Campestre 'Streetwise'		-	-	-	21
Betula pendula (Bp)		-	15	-	12
Betula utilis var. jacquemontii (Bj)		-	5	1	10
Carpinus betulus (Cb)		-	14	2	9
Malus sylvestris (Ms)		-	3	-	1
Prunus avium 'Plena' (PaP)		-	2	2	4
Sorbus aucuparia (Sau)		-	6	-	12
Sorbus aucuparia 'Joseph's Rock' (SJR)		-	10	2	12
Quercus robur (Qr)		-	2	2	10

All trees to have clear stems to 1.8m above ground level with well developed branching heads with a single, central leader and healthy, fibrous root systems. Trees shall be planted into pits of an appropriate size to accommodate the root system without restriction, backfilled with a 3:1 topsoil:compost mix and shall be secured to a machine rounded stake using 1 no. tree tie with rubber spacer. Finished height of stake shall not exceed 1/3 height of staked tree above ground. Foundation design of new buildings shall accommodate proposed tree planting in accordance with NHBC guidelines.

NATIVE SPECIES SHRUB SCHEDULE

NATIVE HEDGE SCHEDULE					
Nr	Name	Height/cm	Age	Root	Pol/L
26	Acer campestre	40-60cm	1+1 or 1/1	B	
158	Corylus avellana	40-60cm	1+1	B	
79	Euonymus europaeus	40-60cm	1+1	B	
106	Ligustrum vulgare	40-60cm		C	2L
11	Sambucus nigra	60-80cm	1+1	B	
79	Viburnum opulus	40-60cm	1+1	B	

Native species shrub mix to be planted at 5/lm in double staggered rows. To be pit planted into pits large enough to accommodate the root systems without constriction. Pits to be backfilled with a 3:1 topsoil:compost mix.

NATIVE SHRUB MIX SCHEDULE					
Nr	Name	Height/cm	Age	Root	Pot/L
884	Cornus sanguinea	40-60cm	1+1 or 1/1	B	
442	Corylus avellana	60-80cm	1+2	B	
442	Cytisus scoparius	40-60cm		B	
222	Hedera helix	40-60cm		C	2L
222	Lonicera periclymenum	60-80cm		C	3L
665	Rosa arvensis	40-50cm	0/1	B	
665	Rosa canina	30-40cm		B	
884	Viburnum opulus	40-60cm	1+1 or 1/1	B	

NATIVE TREE & SHRUB MIX SCHEDULE					
Nr	Name	Height/cm	Age	Root	Pot/L
17	Acer campestre	60-80cm	1+1	B	
17	Betula pendula	60-80cm	1+1	B	
70	Corylus avellana	40-60cm	1+1	B	
53	Ilex aquifolium	40-60cm		C	3L
17	Lonicera periclymenum	60-80cm		C	3L
87	Prunus spinosa	40-60cm	1+1	B	
17	Rosa arvensis	30-40cm	1+1	B	
17	Rosa canina	30-40cm	1+1	B	
53	Viburnum opulus	40-60cm	1+1	B	

NATIVE TREE & SHRUB MIX 2 SCHEDULE					
Nr	Name	Height/cm	Age	Root	Pot/L
121	Acer campestre	150-175cm	2x	B	
101	Betula pendula	60-80cm	1+1 or 1/1	B	
121	Corylus avellana	40-60cm		B	
121	Crataegus monogyna	40-60cm		B	
101	Prunus spinosa	40-60cm		B	
81	Quercus robur	80-100cm	1+2 or 1/2	B	
162	Sorbus aucuparia	60-80cm	1+1 or 1/1	B	

Feathered trees to be planted at 3m centres in groups of 3-6, into pits 750 x 750 x 750mm, backfilled with 1 part compost : 3 parts topsoil with 100gms slow release fertilised added per pit. Trees to be staked with 75mm diameter round stake secured by 1 no tree tie with rubber spacer. Finished height of stake shall not exceed 1/3 height of staked tree above ground.

Native species shall be planted into 450mm depth, good quality clean topsoil incorporating organic compost and slow release fertiliser, over un-compacted sub-grade. Prior to planting all bareroot plant stock shall be dipped into a suitable mychorrizal plant dip in accordance with the manufacturers recommendations. Plants shall be planted in groups of 3-11 of a single species with the taller growing species to the back of the areas of the areas and the lower growing species to the edges of the areas. Planted areas to be mulched after planting with coarse grade forest mulch to a uniform depth of 50mm.

GRASS SEEDING

WILDFLOWER MIX
Subsoil to be cultivated using a disc harrow or rotovator, to 30mm depth then further cultivated and rolled to produce a firm seed bed.
An 80% grasses:20% wildflower seed mix to be sown. Eg: British Seed Houses, WFG8 at 5gm/square metre.

LOW MAINTENANCE GRASS MIX
100mm depth of topsoil complying with BS3882 to be spread to area and pre-seed fertiliser to be applied at 50gm/m². Soil to be cultivated using a disc harrow or rotovator, to 50mm depth then further cultivated and rolled to produce a firm seed bed. Low maintenance grass seed mix such as British Seed Houses A22 mix to be sown at 35gm/m2 to the rear gardens of properties and along the mown margin to POS.

NOTE:
Refer to drawing R-1667/5 for shrub bed details and R/1667/5 for NEAP detail

KEY

- Existing trees to be retained (refer to tree survey & report by JCA Ltd for details)
- Existing trees to be removed
- Proposed Extra heavy standard (14-16cm girth) tree
- Proposed heavy standard (12-14cm girth) tree
- Proposed selected standard (10-12cm girth) and light standard (6-8cm girth tree
- Proposed mixed species native trees and shrubs
- Proposed mixed species low native shrub planting
- Proposed ornamental shrub planting
- Proposed mixed native species hedge
- Proposed amenity grass seed
- Proposed wildflower meadow grass seed
- Existing tussocky grass and scrub to be retained
- Proposed mowing line
- Proposed compacted stone footpath (detailed elsewhere)
- Proposed 1100mm high vertical bar railings and self closing gates to NEAP (detailed elsewhere)
- Proposed 450mm high timber trip rail (detailed elsewhere)

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client: Barratt Homes Yorkshire West

project: Residential Development

Low Barugh, BARNSLEY

drawing title: EASTERN AREA OF PUBLIC OPEN SPACE LANDSCAPE DETAILS

scale	date	drwn by	drawing no
1:500	Sept 2016	SEL	R/1667/3

96.8m
B 6428
HALL FOLD
ETL
NEAP
JUNIOR PROVISION
YOUTH PROVISION
Garage
tarmac
marshy area with ponding
overgrown area
wire fence
stone track
galvanised security fence
mature oak trees
ditch
hedge
Footpath
Grass
T13
T15
T18
T20
T21
T22
T23
T25
T26
T32
G14
G16
G19
G27
G28
G29
G30
G31
G33
H17
H24
S1
S2
S3
S4
boundary - mixed styles
boundary (overgrown)
Native Hedge Mix (3.5m in double)
Low Native Shrub Mix (0.75 ctr)
Native Tree and Shrub Mix (1.00 ctr)

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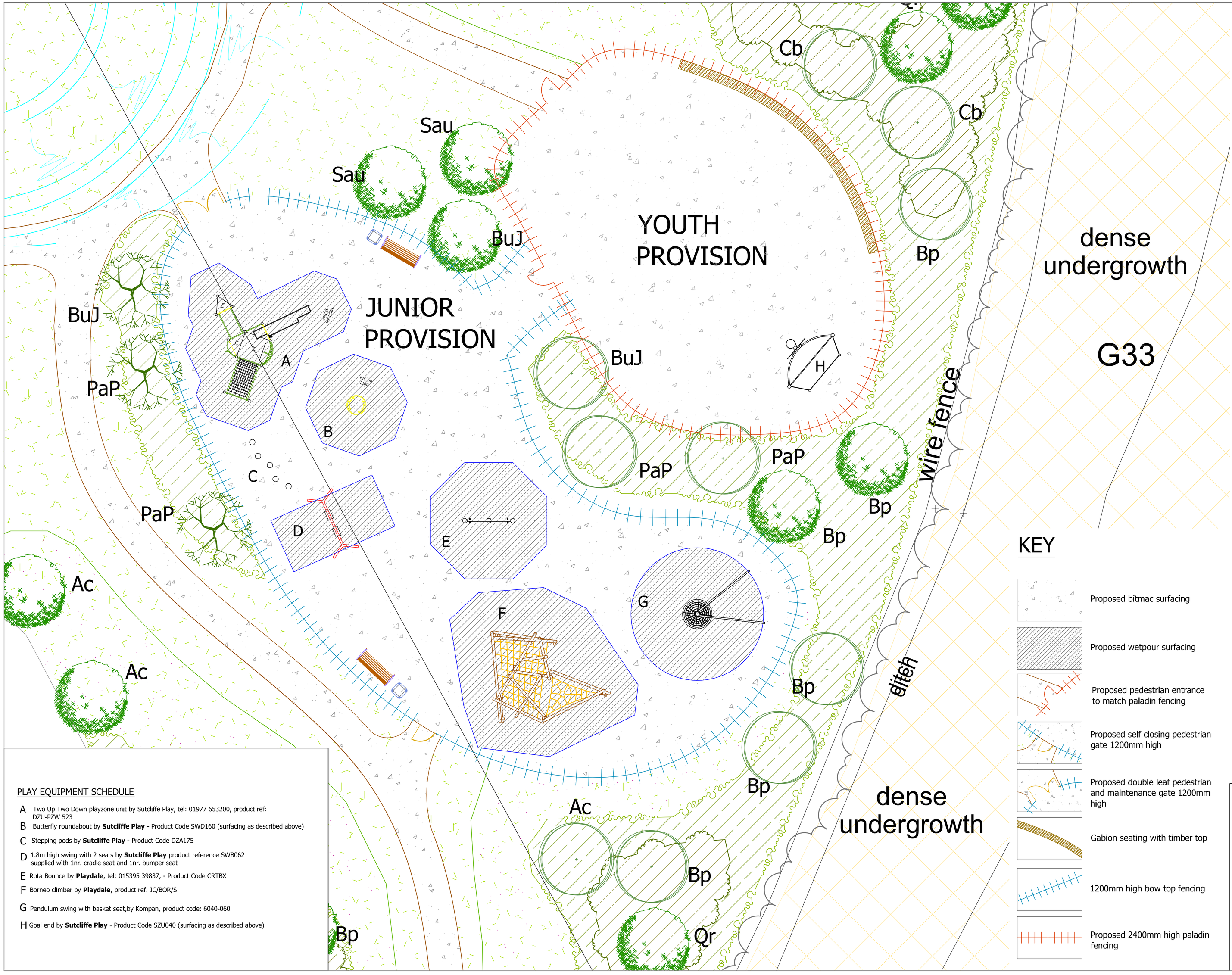
client
Barratt Homes Yorkshire West

project
Residential Development

Low Barugh,
BARNSLEY

drawing title
WESTERN AREA OF PUBLIC OPEN SPACE LANDSCAPE DETAILS

scale	date	drwn by	drawing no
1:500	Sept 2016	SEL	R/1667/4



GENERAL NOTES

All play equipment, surfacing, fencing and gates shall conform to the relevant parts of EN 1176 and EN1177 and shall be erected / installed in accordance with these standards, the Fields in Trust Guidelines, the safety standards published by the Royal Society for the Prevention of Accidents (RoSPA) and with the manufacturers instructions as appropriate.

Safety surfacing to be wetpour safety surfacing laid in accordance with suppliers recommendation for FFH for each individual piece of play equipment.

Edging to tarmac to be a suitable flexible edge such as Aluexcel or similar approved.

FENCING & GATES

The fencing shall be 2.4m high paladin fencing around the youth provision such as Zaun Duo6 Sports or similar, galvanised and powder coated green. Comprising 50mm x 200mm mesh with dual 6mm horizontal wires at 200mm centres and single 5mm wires at 50mm centres. Panels fixed to posts with full height 40mm x 5mm clamp bar with bolt fixings at 200mm centres with EPDM inserts. Posts to be set at 2525 centres and post section to be 80x40mm.

Gates:
Pedestrian gate to be single leaf 1.2m wide, framed in a 50mm x 50mm SHS with Zaun Duo8 mesh welded inside the frame, with slide latch. Gate supplied with rubber bump stop and 2 x suitable gate posts.

Fencing around junior play provision to be 1.2m high bow topped railings of fully welded construction and hot dipped galvanized to BS 1461, polyester powder coated in green, RAL 6005. Individual panels shall be 2.72m long with 2nr. intermediate ground supports per panel set at equal spacings. The measured distance between the highest point of the bow and the top horizontal flat bar shall not exceed 85mm. Vertical bars shall be 16mm diameter at a maximum of 105mm centres. No gaps between bars / vertical rails shall be greater than 89mm to prevent neck entrapment. Horizontal rails shall be 40 x 10mm. Posts shall be 50 x 50 x 3mm RHS with fully welded caps. Construction of the fence shall be undertaken to ensure that maintenance / replacement of panels can be carried out without the need to remove or reset posts and the fence line shall be installed using standard panels / components. In the event that the layout required non-standard panel lengths these shall be manufactured to the required dimensions - on site modification is not acceptable.

Pedestrian gate to be hydraulic Mono Hinge self closing gate and have a maximum clear opening or 1.2m as supplied to by MGC Medway Galvanising Company Ltd, tel. 01795 479489 or similar approved and finished in yellow, RAL 1016. Double leaf combined pedestrian/maintenance gate to be as above. Both gates shall be installed so that there is a 20mm gap between the gate and adjacent posts to prevent finger entrapments and a ground clearance of 75mm to prevent toe entrapments. One of the pedestrian gates to be installed to open inwards and one to open outwards.

All fixings shall be hot dipped galvanised (unless of stainless steel) and shall be of a design such that they do not cause damage to the polyester powder coating during installation and shall be coating in accordance with the requirements of EN 1176. Bolts shall have a dome head and minimum 10mm diameter. Nuts shall have a locking system and be of the shear off type or require a special tool to prevent unauthorised removal.

SEAT AND BIN

Seats shall be the Riva Timber and Steel Seat from Townscapes, steel zinc plated adn polyester powder coated grey, Tel: 01623 513355 (Ref: STG/0167). Seats shall be supplied with extended legs for ground fixing into concrete foundations.

Litter bins shall be Townscapes Birch Mild Steel Litter Bin ref: BIN/0093 On Ground Fix, zinc Plated Galvanised Steel Finished in Black.

SIGNAGE

A suitable 'Welcome' sign shall be installed at the main pedestrian access. The exact wording and details of the sign shall be agreed between the client and the local authority prior to fabrication and all construction shall be in accordance with the requirements of the local authority.

PLAY EQUIPMENT SCHEDULE

- A Two Up Two Down playzone unit by Sutcliffe Play, tel: 01977 653200, product ref: DZU-PZW 523
- B Butterfly roundabout by **Sutcliffe Play** - Product Code SWD160 (surfacing as described above)
- C Stepping pods by **Sutcliffe Play** - Product Code DZA175
- D 1.8m high swing with 2 seats by **Sutcliffe Play** product reference SWB062 supplied with 1nr. cradle seat and 1nr. bumper seat
- E Rota Bounce by **Playdale**, tel: 015395 39837, - Product Code CRTBX
- F Borneo climber by **Playdale**, product ref. JC/BOR/S
- G Pendulum swing with basket seat,by Kompan, product code: 6040-060
- H Goal end by **Sutcliffe Play** - Product Code SZU040 (surfacing as described above)

KEY

- Proposed bitmac surfacing
- Proposed wetpour surfacing
- Proposed pedestrian entrance to match paladin fencing
- Proposed self closing pedestrian gate 1200mm high
- Proposed double leaf pedestrian and maintenance gate 1200mm high
- Gabion seating with timber top
- 1200mm high bow top fencing
- Proposed 2400mm high paladin fencing

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client: Barratt Homes Yorkshire West

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Low Barugh, BARNSLEY

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scale	date	drwn by	drawing no
1:100 @A1	Sept 2016	SEL	R/1667/6