Development at Westfield Down, Westfield

Survey of site and report

Client: Westfield Parish Council

Reference: CD/WPC/001

Status: Information for Client FINAL

Dated: 7th December 2021

Paul Cobb CEnv MCIEEM, 51 Scotton Street, Wye, Ashford, Kent TN25 5BU

Telephone 01233 813186 Mobile 07713 333160 paul.cobb@fwagsoutheast.co.uk

Contents

1 Proposal

A mixed housing development is being constructed on Westfield Down, at Westfield in Sussex. The development occupies 1.2 ha in the southwest corner of a triangular-shaped field of about 3.6 ha, as shown on the drawings provided 6775/1/D and 6775/8/1/B. As well as the housing, an amenity space and sports pitch with a pavillion is under construction; there will be an access road to this with some parking bays and parking spaces near the pavilion. The remaining area of the field is available for biodiversity and landscape objectives. Current proposals from the developer here include;

- Hedge and tree planting and hedge reinforcement
- Native species grassland creation
- Wildflower area creation
- Log piles in a small area of existing trees

South East FWAG was commissioned to undertake a report including a survey and assessment with recommendations. References A to I in this report refer to the developer's marking on a map of the above proposals (Appendix 1).

2 Site description

The site of the development and proposals itself ('the site' - centre grid reference TQ81661602) is within the Westfield village envelope. Westfield Down is former arable field left to natural regeneration which over 10 years developed mixed scrub and trees. Of this only area H on the developer's map remains.

The site is bounded by the A28 to the northwest, a road (Top Road) to the northeast, and a hedge and trees along the southeast as far as an unadopted road called Bakers Road. The surrounding land uses are settlement, amenity, woodland and farmland. The site is within the High Weald Natural Character Area.

The original site sloped N-S, from a high point of 50 m by the A28 towards woodland and a spring beyond the south boundary. This topography had been greatly modified, by the development itself, the levelling of land for the sports pitch and the excavation of an area on the south edge to install a water attenuation feature.

The soil type for the site is given as slightly acid loamy or clayey, with impeded drainage (Soilscape Series 8).

The area of the site surveyed for this report took in the area available for landscape and biodiversity objectives and with current proposals from the developer.

3 Site status

A search of the MAGIC Information System shows there is one designation on the site (High Weald Area of Outstanding Natural Beauty).

Part of the woodland immediately to the south of the site (pictured, left) is ancient woodland and on the woodland Priority Habitat Inventory. It was not surveyed for this report. However, as it is a natural drainage point from the site, water run-off should be dealt with adequately to minimise the impact on this site of high conservation value.

Environment Agency flood risk mapping shows the site not to be at risk from flooding. Groundwater vulnerability mapping on MAGIC classifies the site as ‘high’ vulnerability.

4 Surveys

4.1 Background

For the desk study, the following information sources were accessed for background information and to assist the field work;

- Multi Agency Geographic Information for the Countryside (MAGIC)
- Google Earth satellite imagery
- Site drawings referenced above

The survey was carried out on the 18th of October 2021. Weather conditions at the time were good.

4.2 Methodology, constraints

A survey was limited to the area described in section [2] above as 'the site', outside of the area shown in drawing 6775/1/D but including all the site boundaries except the hedge/trees on the southwest (between the development and Westfield Surgery).

Vegetation survey of remaining habitats was limited to principle species and features. Areas A, B, C, G and I are currently under construction activity so these could be viewed but afforded no recordable features for the purposes of this report – they are essentially a blank canvas.

There was no landscape or archaeological assessment, although the proposals in this report take into account the potential to screen or soften the visual impact of the development. Footpath access across the site will be rerouted, and is not considered in this report except for where it impacts on area F.

5 Results

5.1 Assessment of confidence

The survey of the site was carried out within the physical constraints, and to an appropriate level of detail in the time available, set out in the brief from the client. It is a broad not an exhaustive survey:
- which allows proposals to be put forward within this document for the areas assessed, and
- on which to base more detailed proposals for management of areas, and the creation of new features for landscape and biodiversity gain.

The confidence to be placed in the results is assessed as follows;

- Vegetation; while much vegetation is not actively growing at this time of the year, the type of vegetation occurring on the site provides a good measure of its habitat value.
- Hedges and trees; assessment is limited to the main woody and herb species, and the structural dimensions of the features.

5.2 Copse Area H

A small area of trees (pictured, right) with naturally regenerated silver birch *(Betula pendula)* and goat willow *(Salix caprea)*, with occasional sycamore *(Acer psuedoplatanus)* and oak *(Quercus robur)* and some bramble *(Rubus spp).* At about 'pole stage' and 4-6 m height, densely spaced.

Comments;

1. The only surviving remnant of the tree and shrub growth that developed on the abandoned field, so has a value for that alone.
2. A small but valuable habitat for eg small birds (blue tit and robin seen at time of survey).

5.3 Hedge and trees Area E

A non-continuous boundary feature (pictured, left), running alongside the footpath from the east end of Bakers Road to the south end of Top Road, and forming the southeast boundary of the site. The main hedge species is hawthorn *(Crataegus monogyna)* and the trees (oak, sycamore, silver birch and goat willow) have an estimated height varying from 4-8 m; the whole feature is roughly 2 m width. Other species include wild cherry *(Prunus avium),* bramble, gorse *(Ulex europaeus)* and bracken (*Pteridium aquilinum)*. The section closest to Bakers Road opposite a length of post and rail fencing has many mature sycamores that have been coppiced or pollarded in the past (pictured, left).

Comments;

1. Good wildlife habitat value, and will also be of landscape and screening value to the development.
2. It is rather discontinuous and could be reinforced by additional planting.

5.4 Hedge Area E

A trimmed hedge running along the A28 (north section pictured, right). The main species are hawthorn and mature sycamore, with occasional holly *(Ilex aquifolium),* yew *(Taxus baccata),* oak and privet *(Ligustrum vulgare).* There are climbing species of ivy (*Hedera helix),* while the base is dominated by ivy and some bramble and bracken. The hedge has been kept trimmed / pollarded to about 1.8 m height; the whole length is roughly 1 m width. There are some small gaps.

Comments;

1. Not a high wildlife habitat value due to dominance by 1-2 species.
2. It has other values such as for screening and shelter.

5.5 Boundary Area E

The boundary to the site along Top Road is a bank some 2 m wide (pictured, left), level on top but which now slopes steeply on the southwest side to the sports pitch. Vegetation consists of bramble, nettle *(Urtica dioica)* and thistle *(Cirsium spp)* with 2 small holly trees and one immature hawthorn bush.

Comments;

1. Little existing wildlife habitat value as dominated by invasive species.
2. Visually a key element to the site as the land slopes away toward to the housing development from here.

5.6 Area D

A small triangular area at the southeast end of the sports pitch alongside 5.3 above (pictured, right), roughly 70 m in length and 20 m at its widest alongside area 5.5 above. Slopes steeply to the sports pitch on the north end of the northwest side. Very sparsely covered with some ruderal vegetation alongside the site fence, otherwise bare spoil and compressed rubble used for an access road.

Comments;

1. Little wildlife habitat value as disturbed ground.
2. Will leave an area difficult to maintain when the site development is complete.

5.7 Area F

An open area (pictured, left) between 5.4 and what will be the boundary fencing to the sports pitch and including the line of the (now closed) footpath. Vegetation consists of rough grasses, bramble, bracken and thistle.

Comments;

1. Will be restored as the line of the footpath so subject to heavy foot traffic.
2. Would benefit visually from being screened from the sports pitch.

6 Discussion

The discussion of the results that follows assesses the potential impact of the development on the biodiversity and landscape value of the site.

6.1 Biodiversity (ecological) impact

- As it stands now the site is not of great wildlife value with the exception of 5.2 the copse.
- The boundary hedge habitats 5.3 and 5.4 are of wildlife value (but 5.4 much less so).
- The copse should be retained and boundary habitats protected.
- There is opportunity to create wildlife habitat within the site in areas not destined for development or sports (Areas A and G).

6.2 Landscape (visual) impact

- The housing development will be visible, but the site has advantages in screening from distance by surrounding landscape features.
- Reinforcing existing site boundaries 5.3, 5.4 and 5.5 (Areas E) will provide effective screening of the site.
- Landscape planting within the site will provide additional screening and wildlife habitat (Areas B, C, F and I).

View across Area A to sports pitch

7 Recommendations

Proposals are made for managing and creating wildlife habitat, and for integrating the development into its landscape and building on opportunities arising from the site for landscape and biodiversity gain over a period of time.

7.1 Hedge planting and management (Areas B, C, E, F and I)

For existing hedges and the creation of new. For species and specifications see Appendix 2.

7.1.1 Area E (5.3 above)

- Coppice mature sycamores opposite post and rail fencing and remove old wire fence
- Prepare the ground well and plant new hedging at 2 m distance alongside these within the site boundary
- Clear vegetation from 3 gaps along the remainder of the hedge running northeast towards Top Road (respectively 15, 15 and 20 m length)
- Coppice the single sycamore in the second gap and leave the 2 wild cherries in the third (closest to Top Road)
- Prepare the ground well and plant new hedge plants in cleared areas and extending as 'tree bays' into the site
- Clear vegetation from 20 m length on cricket pitch side of footpath (pictured, right, now marked by some posts)
- Prepare the ground well and plant new hedge plants along this length

- Clear underneath a 30 m length closest to Top Road alongside Area D leaving any mature oak and hawthorn
- Keep the remainder of the hedge trimmed to current height and keep sides trimmed up as necessary so as not to obstruct the footpath
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.1.2 Area E (5.4 above)

- Coppice, remove existing plants, prepare the ground well and replant hedging along a 40 m length running northeast from the site entrance (to where a footpath once entered the site)
- Coppice, remove existing plants, prepare the ground well and replant hedging along a 10 m length running southwest from the site entrance
- Plant new hedging along both sides of the visibility splay at the site entrance to connect with the roadside hedge replanting above, the planting on the north side also to connect with Area I (planting within sight lines to be kept to < 80 cm height)

- Enlarge to at least 5 m width 3 small gaps along the length running southwest from the site entrance (example pictured, left), prepare the ground well and replant hedging
- Keep the remainder of the hedge trimmed to current height and keep sides trimmed up as necessary so as not to obstruct the footpath(s)
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.1.3 Area E (5.5 above)

- Clear vegetation from the whole length of the boundary alongside but set back from Top Road, leaving the 2 holly trees
- Prepare the ground well and plant hedging along this length
- Keep sides trimmed up as necessary so as not to obstruct the road
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.1.4 Areas B and C

- Prepare the ground well and plant along an 80 m length running northwest from the pavilion towards Area F (pictured, right)

- NB rather than include individual specimen trees in Area C, plant a mixed species 'windbreak' type hedge with species that are allowed to grow taller than a typical hedge
- Allow free growth
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.1.5 Area F

- Prepare the ground well and plant hedging running parallel to the A28 roadside hedge southwest towards Area B
- Keep sides trimmed up as necessary so as not to obstruct the footpath
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.1.6 Area I

- Prepare the ground well and plant hedging running from the A28 roadside hedge and visibility splay along the south side of Area A as far as the end of the housing development opposite
- Allow free growth
- Maintain all new plantings for a period of 5 years and decide future management at this point

7.2 Grassland and wildflower creation (Areas A, G and D)

Two areas between the sports pitch and the housing development, separated by the access road to the pitch and pavilion, plus the triangular area in the northeast of the site. For species and specifications see Appendix 3. NB this assumes that hardcore, rubble and other temporary materials have been removed, however wildflowers establish best in poor soil and Areas G and D should not be enriched with topsoil.

7.2.1 Area A

- Sow a native species grass mix that can take some heavy traffic from footfall.
- Prepare the ground well and get good establishment (good seed to soil contact)
- Cut frequently in the first year of growth, thereafter cut no more than needed to allow comfortable recreational use.

7.2.2 Area G

- Sow a native species grass and wildflower mix that can be allowed to grow up and flower over the spring and summer.
- Prepare the ground well and get good establishment (good seed to soil contact)
- Cut frequently in the first year of growth, thereafter cut once a year after end of June and removing cuttings if possible

- Consider creating a small pond in the south east corner of this below Area H (pictured, left), fed from overland runoff

7.2.3 Area D

- Sow a cornfield annual mix that can be allowed to grow up and flower over the summer
- Prepare the ground well and get good establishment (good seed to soil contact)
- Leave to flower in the first year of growth without any cutting, and then leave to seed
- Plant 5 native species of trees at random in this area, such as;
  - Oak *(Quercus robur)*
  - Field maple *(Acer campestre)*
  - Silver birch *(Betula pendula)*
  - Hawthorn *(Crataegus monogyna)*
  - Holly *(Ilex aquifolium)*
- Leave the area to develop natural regeneration without other management

7.3 Copse (Area H)

- Thin out the 6 largest silver birch and goat willow, taking care not to disturb any seedling oak, and cut into metre lengths to be stacked as log piles at the edge of the copse
- Leave at least a 6 m buffer strip around the copse undisturbed to allow natural regeneration to take place from seeding trees
- After 5 years thin out another 6 trees from the copse and stack as log piles again

7.4 Bakers Road

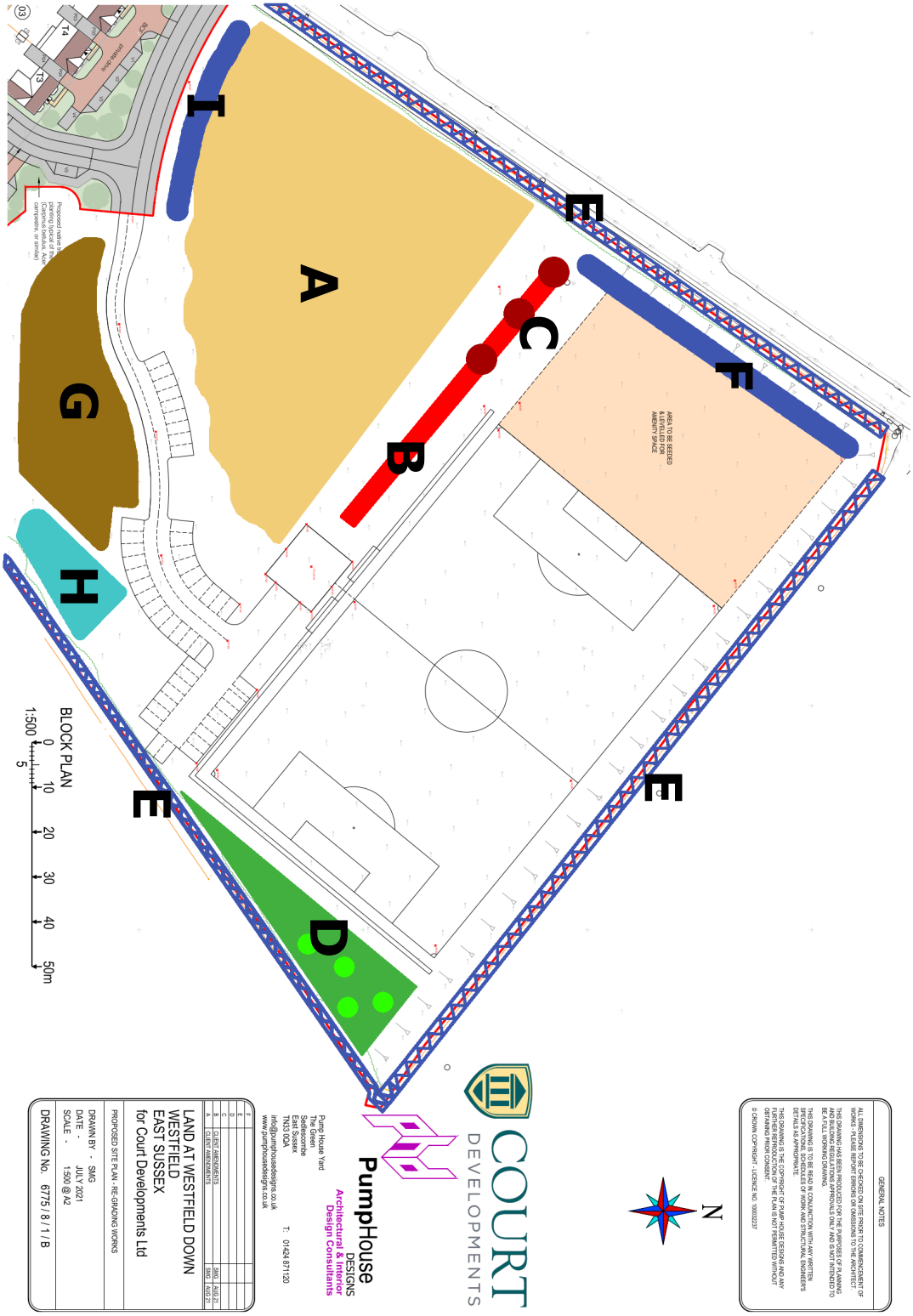
- The frontage to the housing development will be a blockwork wall (pictured, right) with stone gabions (stone filled mesh baskets)

- The gabions will provide little space for planting but climbers planted at the foot will attach themselves to the mesh for support
- Suitable species providing pollen, nectar and fruits are;
    - Honeysuckle *Lonicera periclymenum*
    - Field Rose *Rosa arvensis*
    - Common Hop *Humulus lupulus*
- Prepare the ground well incorporating friable material such as compost or well-rotted manure and plant firmly, training the plants to reach the gabions if necessary

8 Summary and conclusion

1. The site has little biodiversity value except for a small copse of trees which has survived clearance.
2. The hedge and tree boundary features have landscape and biodiversity value.
3. The site is already not very visible in the landscape, and boundary features should be maintained and managed.
4. New hedge and tree planting and reinforcing boundaries will screen the site and have additional biodiversity value.
5. Creating grass and wildflower areas and leaving areas to natural regeneration within the site will be a gain in biodiversity.

Appendix 1 Developers site map



Appendix 2 Hedge planting
Source: FWAG

Planting

- Species: 65% hawthorn, 10% field maple, 10% hazel, 8% blackthorn, 6% spindle, 1% holly. Ideally use two-year-old plants.
- On poor ground incorporating a material such as well-rotted manure will help establishment.
- Plant between October and March, ideally before January while the soil is still warm and there is more moisture available.
- Plant 4-6 plants per metre in staggered double rows.
- Ensure that the roots do not dry out during transfer. If necessary heel them into temporary trenches whilst awaiting planting.
- Try to use local provenance stock as these will be more suited to the conditions and thrive more than 'foreign' plants.
- If replanting on the line of an old hedge, try to retain some of the old plants and incorporate trees.

Management

- Use tubes, spirals or quills to protect young plants from damage and grazing.
- Weeds need to be controlled for the first two years. If using tubes or quills the bases can be sprayed with herbicides without harming the roots. The type and application of herbicide is critical and advice should be sought.
- Planting through a mulch such as black plastic or straw will help to reduce weed competition and retain moisture.
- Tag tree saplings to avoid cutting during trimming, or protect with tree shelters.
- To encourage bushy growth, cut back the tips of the new plants by one third. Trim lightly every second or third year, allowing the hedge to increase in size each time.
- If the hedge is to be laid, the plants need only to be trimmed up the sides until the leaders have reached a suitable height – 2.4 - 3.6m (8-12ft).
- Alternatively the hedge could be coppiced close to the ground after 2-3 growing seasons, allowing it to grow bushy from the base.

Appendix 3 Grass Mix
Source: Cotswolds Seeds

Appendix 3 Wildflower Mixes

Source: Nowakowski, M. & Pywell, R.F. (2016) *Habitat Creation and Management for Pollinators*. Centre for Ecology & Hydrology, Wallingford, UK.

Mid-summer wildflower mix

Basic mix - Wildflowers

1.5% Common Knapweed
1.2% Meadow Buttercup
0.8% Common Sorrel
1.0% Bird's-foot Trefoil
0.8% Red Campion
0.8% Wild Red Clover
1.4% Self-heal
1.0% Wild Carrot
0.4% Lady's Bedstraw
0.6% Oxeye Daisy
0.5% Yarrow

10.0%

Grasses

31.5% Chewings Fescue
22.5% Slender Red Fescue
18.0% Crested Dogs-tail
18.0% Smooth Meadow Grass

90.0%

Sown at 20kg/ha.

Approx. cost £280–300/ha.

SEED MIX

Annual mix for pollinators

Wild flowers

30% Crimson Clover
25% Common Vetch
20% Persian Clover
10% Phacelia
5% Borage
5% Cornflower
5% Corn Marigold

100%

No grass

Sown at 15kg/ha.

Approx. cost £210 - 230/ha.

Timing, site preparation and sowing

- Mixes can be sown in spring (mid-March – end April) or late summer/early autumn but tend to be more successful in late summer as the soils are warmer and there is more moisture available after sowing. Avoid sowing legumes (e.g. pollen & nectar mixes) after the beginning of September as soil temperatures will be too low. They are slow growing plants and need time to establish before the frosts arrive.
- Clear weeds and vegetation from the site. This can be done with repeated cultivation and/or repeated application of herbicide over the growing season (eg. glyphosate).
- If there is time, allow the first flush of annual weeds to come up, then spray them off or lightly cultivate to create a stale seed bed.
- Harrow and roll to produce a fine tilth and firm surface. Most wildflower seeds are small so need a good seedbed quality. Ensure the area is free from large ruts and stones to allow for mowing later.
- If sowing over an existing grass sward, cut grass short and remove cuttings. Scarify to create 30-50% bare ground using a harrow or light rotavation.
- Sow the seed mix evenly using hand broadcasting or mechanical distribution (seed or fertiliser spreader). **Do not incorporate seed by drilling/harrowing – just broadcast onto surface**. The seeds are very fine and will not germinate if buried. It is possible to bulk out seed with carrier such as sand or sawdust to get a more even coverage.
- Roll once or twice after sowing to ensure good contact between seed and soil. Very important in dry weather. Do not roll if site is very wet. (Cambridge roll ideal)

Aftercare & management: Year 1

- **Regular cutting in Year 1** is usually needed to help suppress grasses and weeds in canopy, helping sown species to become established. Could need 2 – 3 cuts in first 12 months (1st cut end of March if autumn sowing). Volume of material is usually low so can flail and leave cuttings. If there is a large amount of vegetation, try to collect and remove if possible to avoid nutrient build-up.
- You may not see many flowers in Year 1, but should get a good show by Year 2 with this approach.
- Do not apply fertilisers.