Spectrum Ecology

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Preliminary Ecological Appraisal

Land off Kelvedon Street

Newport

NP19 0DW

Report by

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For

MVR Solutions Ltd

4A-4B Mariner Way,

Newport NP19 4PQ

Report Ref: SE158-PEA

Non-technical summary:

MVR Solutions Ltd (the client) are seeking to develop a small parcel of land off Kelvedon Street, Newport, NP19 0DW at Grid Ref ST 32250 87728. The land is a brown field site which was once an industrial printing unit and was demolished sometime after 2006. Spectrum Ecology was commissioned to carry out a Preliminary Ecological Appraisal (PEA) to help inform the proposals and ensure that any ecological value of the site is give due regard.

The survey found that the site consists of a variety of poor habitats which have evolved through succession and lack of any management since the industrial units were demolished. The main two habitats present being scrub and a very poor example of Open Mosaic Habitat on Previously Developed Land (OMHPDL). The site as a whole is comprised of a limited number of common species with little intrinsic conservation value. A number of non-native species – likely to be garden escapes from adjacent properties – had also colonised the site. These include Buddleia, Black Locust and Foxgloves.

The survey site is small in extent, measuring only approximately 60 metres x 40 metres. It is located within a mainly residential area with small industrial units to the south west. As a result there is development on all sides and very limited connectivity to the wider landscape. It is considered from the lack of faunal evidence that the site plays no significant role in the connectivity of the natural landscape and the proposed development is highly unlikely to result in any loss of ecological connectivity.

The tall scrub and self-seeded trees on the north western boundary provides the most potential connectivity with the adjacent rear gardens of the terraced houses of Feering Street and Witham Street, however once those private gardens reach Coverack Road the gardens do not connect with any further habitats.

It is recommended that the provision of trees and the open aspect adjacent to the existing residential gardens is retained and enhanced as part of the development. This will maintain and enhance what little connectivity exists at present, benefitting nesting birds and small mammals, including hedgehog. Any fence boundaries in the new development should also include gaps on the lower edge to provide access points for hedgehog should they be present in the future.

The habitat type combined with the very limited extent connectivity and lack of any field signs during the walkover survey suggest that protected species are highly unlikely to be present. However, due to suitable habitat associated with the nearby Lysaght Park and the River Usk within 250m to the west of the survey site, there is potential for the survey site to be close to bat commuting routes and provide opportunistic foraging opportunity. It is therefore recommended that new roosting provision is incorporated into the new development in the form of integrated bat boxes or similar, installed high up on the east and / or west-facing gable ends.

The site is currently being used by Homeless persons with three tents present during the survey, one of which was occupied at the time of the survey. As a result the site has significant levels of waste as well as fly-tipped waste. In addition evidence of human waste was a constraint to the survey in some areas and I was advised by the persons living there not to walk in certain areas.

The large soil and stone mound deposited near the north eastern boundary in Witham Street provides a low probability of potential refugia / sheltering for small mammals and amphibians. It was noted during the survey that the soil mound was tightly compacted and aside from a low number of larger stones was made up primarily of soil with some small gravel.

However following the precautionary principle, it is recommended that site clearance works of the vegetation and earth mound are carried out under a method statement and under the supervision of an Ecological Clerk of Works. This will ensure due regard is given for any species present with potential to be impacted.

Provided the above recommendations are implemented, it is considered that there are no 'in-principle' ecological constraints on the proposed development and no further surveys are recommended.

Phase 1 Habitat Survey:

1.0 Introduction

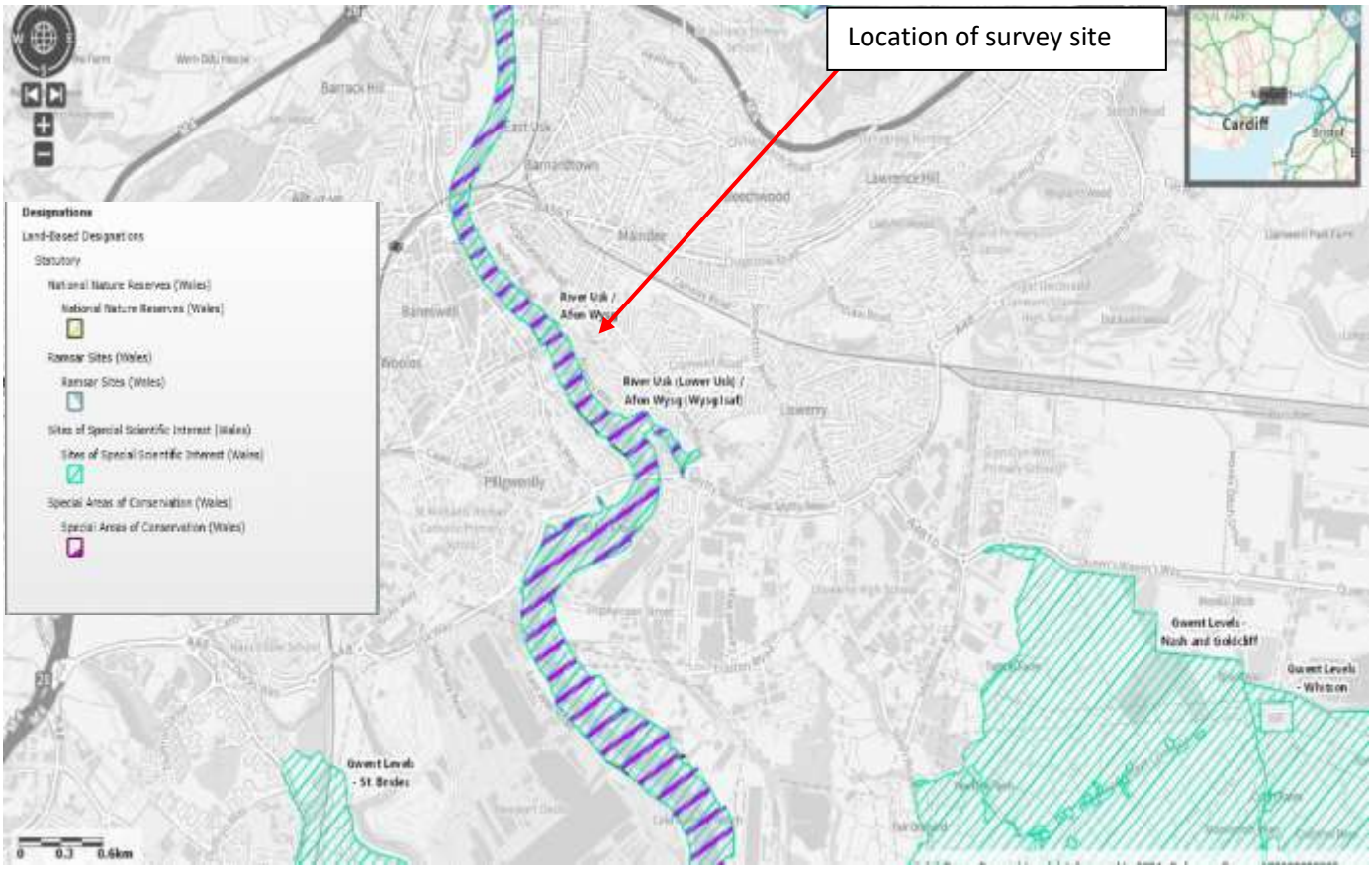
A Phase 1 Habitat Survey (JNCC, 2010) of the Site was undertaken by on the 25th September 2024. The weather was cloudy with sunny spells for the duration of the survey, with a temperature of 13 degrees Celsius and 5 oktas of cloud cover. The site is small in extent and was fully accessible for a direct walkover with the constraints being the tents which are pitched on the land and evidence of human waste. It is considered that observations were very thorough in the areas not constrained which enabled a preliminary assessment of habitats, land use and ecological features. The main habitats present were recorded using standard Phase 1 Habitat Survey methodology as described in the Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit (JNCC, 2010). The plant species defining the habitat types on the Site were recorded. Evidence of any Invasive Non-Native Species (INNS) of plants subject to legal controls were recorded. Due to the size of the site and being located close to residential and industrial uses, it was considered that a Local Environmental Record Centre check would be of very little value.

1.1 Designated Sites:

As part of the desktop study, a search for nearby designated nature conservation sites was made using Defra's online Magic Map (https://magic.defra.gov.uk/MagicMap.aspx). This search showed that there is only one designated nature conservation site within 2 km of the site boundary. The lower River Usk Site of Special Scientific Interest (SSSI), SAC is located just 280m to the west of the surveyed site. The River Usk (lower Usk) is designated for its extensive areas of riparian habitat and both geological and biological

diversity. The site provides a mosaic of habitats along its length with floral and faunal assemblages changes as it changes from fresh water river to tidal brackish water. The designation seeks to protect its populations of Otter (Lutra lutra) as well as several aquatic fish species all listed as European protected species.

Due to the survey site being small in extent with limited habitat, located within a very urban environment, with little to no direct connectivity to the River Usk SSSI to the west, it is considered highly unlikely that any development of the site would negatively impact the nearby protected and designated site. This can also be said for designated sites within the wider vicinity (Gwent Levels 3.5km away and Severn Estuary 5km away). The survey site does not comprise the appropriate habitat to support Otter, Atlantic salmon or Atlantic Stream Crayfish.



1.3 Protected Species:

Due to the site being located within a highly urbanised developed residential and industrial environment, with no direct habitat connectivity to the wider natural environment due severance by built form and highways / train line, it is considered that there are no significant means for any protected species to be present other than mobile species such as commuting bats.

While the site may provide some foraging potential for local bat species, the very limited extent and connectivity with wider habitat would suggest it is less than optimal for the species. Furthermore, there are likely to be far more suitable foraging grounds in the wider vicinity, including along the banks of the River Usk and more closely Lysaght Park. See aerial image in section 1.5

1.4 Online Data Trawl Results

The nearest record was for an Otter in Lysaght Park at 300 metres away and dating from 2005, the next being Reed Bunting at 348 metres away. Common Frog was recorded at 400m.

As this site is bounded on all four sides by buildings, fences and hard surfacing, then it is considered the likelihood of encountering such species is negligible. Notwithstanding the site's lack of connectivity, the precautionary principle must be applied and the removal of any of the brash piles, waste and the soil mound must be supervised by an Ecological Clerk of Works. In the unlikely event that protected species are encountered, all works will cease and the advice of NRW sought.

1.5 Survey Site location plan

1.6 The site in a wider landscape context

1.7 Habitats Present:

Habitat	Description
Scrub A2.1	The majority of the site comprises of scrub which consist mainly of bramble interspersed with ivy around the boundaries and a very limited range of rank grasses docks. A few common forbs including *Rumex acetosa, Taraxacum officianale* and *Bellis perennis* were present however not abundant enough to change the habitat type. Evidence of garden species encroachment was found along the east boundary, with garden escapes such as buddleia observed. The western and southern boundary has become overgrown with bramble and was probably once a hedge dominated by privet and ivy.
Scattered Trees A3.1	On the northern boundary close to the residential properties, immature self-seeded trees have taken hold. Willow and Sycamore are present, however there is a large stand of false acacia also known as Black locust which is considered

	an alien invasive species. The trees present do not provide any ecological value as such.
OMHPDL	An open mosaic habitat on previously developed land is considered a priority habitat. Whilst initially there are tiny patches of the site that may be considered as this site is a brown field site, there are many habitats not present which constitute OMHPDL. There is very little bare ground, due to succession, a lack of south facing slopes and seasonal ponds or damp areas. As such this site is considered to be a poor example of OHMPDL at this stage and would take significant management to halt succession into total scrub.
Spoil Mound	There is historical evidence that the sites top layer was scraped as there is a large soil and rubble mound which now includes some fly-tipped waste (including plastics and garden waste) near the north and east perimeter on Witham Street. The mound has vegetated with nettle, rosebay willowherb and garden species such as buddleia.

1.8 Phase 1 Habitat Map:

1.9 Target Notes:

Target Note (TN)	Description
TN1: Soil Mound	The site was mechanically scraped at some point in the recent past probably around 2006 after the demolition of the commercial unit, with the spoil being left in the northeast corner. The spoil heap has the potential to provide refuge to small mammals and amphibians. As a result, during the removal or re-instatement to the land any mechanical works should be supervised by an appropriately qualified ecologist.
TN2: Tents	There is evidence that persons have been living on the site over a number of years and have become integrated into the site. As a result, the food waste and human waste are likely attracting rats and domesticated pets, which will have a detrimental effect on nesting birds and small mammals.
TN3: Fly-tipped waste	Area dominated by fly-tipped waste from persons living on site and from garden waste. The plastic waste has the potential to act as refugia for small mammals and amphibians. Avoidance strategy required when removed under the supervision of an Ecological Clerk of Works.

1.10 Species List:

The site is subject to regular access and it used as a depository for garden waste as well as being used as a camp site for the homeless. At the time of the initial survey, not all species present will have been identified as part of this survey. However, it is considered that an adequate assessment was able to be made to be able to characterise the general assemblages and to be able to characterise the habitat type and associated ecological value.

Plants	Invasive non-natives	Grasses	Trees
Broad-leaved dock *Rumex obtusifolius*	Black Locust / False Accacia *Hyacinthoides hispanica*	Yorkshire fog *Holcus lanatus*	Goat willow *Salix caprea*
Rosebay willowherb *Chamerion angustifolium*	Buddleia	Bent grass *Agrostis sps*	Hazel *Corylus avellana*
Common daisy *Bellis perennis*		Perennial rye grass *Lolium perenne*	Sycamore *Acer pseudoplatanus*
Bramble *Rubus fruticosus*			
Stinging nettle *Urtica dioica*			
Ribwort plantain *Plantago lanceolata*			
Creeping thistle *Cirsium arvense*			
Ivy *Hedera helix*			
Creeping buttercup *Ranunculus repens*			
Dandelion *Taraxacum officinale*			
Hedge Bindweed *Casystegia sepium*			
Ragwort *Jacobaea vulgaris*			
Phragmities *Myosotis sylvatica*			
Horticultural Species			
Buddleia species			

1.11 The Phase 1 Habitat survey found that there are no 'in principle' ecological constraints on redeveloping the site. Protected species are highly unlikely to be either not present or avoided through a robust methodology and the assemblages of floral species are common and include non-native invasives. The site is small in extent and has little or no direct connectivity to wider habitat. It plays no significant role in the connectivity

of the natural landscape and it is considered that redevelopment would not result in any material loss of ecological connectivity.

1.12 Despite the above, bats commuting between adjacent habitats may use the location for foraging and it may therefore be associated with commuting routes. It is therefore considered that ecological enhancements should be provided within the new development in the form of new roosting opportunities for crevice-dwelling bat species such as Pipistrelle, incorporated into the new buildings. In addition, as a number of small passerines were heard during the walkover survey, the installation of bird nesting boxes should be installed on any newly proposed buildings.

1.13 It is considered that no further surveys are required for the site.

2 Recommendations

2.1 An ecological Clerk of Works will be present for all ground and site clearance activities at the start of the development.

2.2 Non-native shrub and tree species should be removed from the site and replated with native species such as field maple and silver birch especially placed close to the existing terraced gardens to continue that 'corridor'. gaps should be replanted with native species such as hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa.* Such species will provide pollinator-friendly blossom in spring and nesting bird potential whilst retaining and augmenting the landscape amenity value.

2.3 New hedgerows should be established along the north eastern boundary, planted with native species such as hawthorn Crataegus monogyna and blackthorn Prunus spinosa. Such species will provide pollinator-friendly blossom in spring and nesting bird potential whilst enhancing the landscape amenity value.

2.4 Any new fences as part of the development will include gaps at the base of 150mm x 150mm every 10 metres to ensure hedgehogs and other small animals can freely access the gardens and boundary hedgerows in particular. The hedgerow feature connects with neighbouring gardens and has commuting potential for local small mammal and amphibian populations.

2.5 Due to the suitability of habitat beyond the proposed site area in the form of the riparian habitat of the River Usk and the proximity of Lysaght Park, to the south and west of the survey site, there is some potential for commuting bats to pass near the proposed development site. Therefore, integral bat bricks will be provided and built into the fabric of the new building to provide new roosting opportunities within the new development. The incorporated bat boxes should be installed high up on either the east, west aspects or south-facing gable ends.

2.6 Bee Bricks can be used in place of standard bricks or block in the construction to create habitat for solitary bees. 2 x bee bricks should be installed in different locations at least 1 metre from the ground on the south-facing elevation, ensuring that no vegetation will grow in front of the brick which could block flight access. The bee bricks will create additional habitat for red mason and leafcutter bees, amongst other cavity-nesting species.

2.7 Bird nesting boxes in the form of sparrow terraces will be placed on the northern elevation of the proposed buildings as well as bird nesting boxes on the newly planted trees located on the southern boundary.

3 Relevant legislation

3.1 The Environment Act (Wales) 2016 section 6 'Biodiversity and resilience of ecosystems; places a duty on public authorities under subsection (1) to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duties in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

3.2 In complying with subsection (1), a public authority must take account of the resilience of ecosystems, in particular the following aspects:

(a) diversity between and within ecosystems;

(b) the connections between and within ecosystems;

(c) the scale of ecosystems;

(d) the condition of ecosystems (including their structure and functioning);

(e) the adaptability of ecosystems.

4.0 References

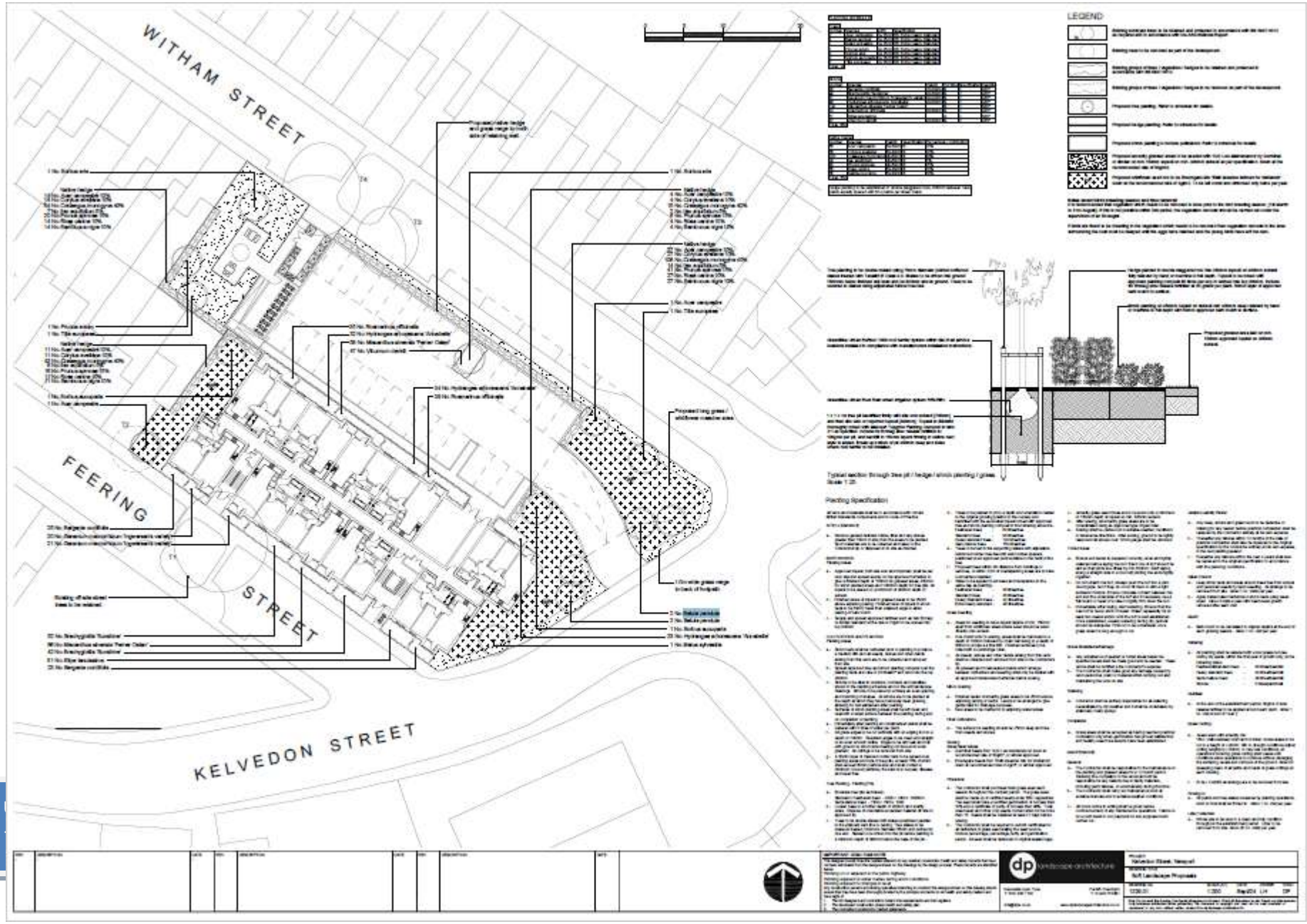
•*Urban Environments and Wildlife Law: A Manual for Sustainable Development – Paul A Rees 2002*

•*Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit (JNCC, 2010).*

•*Defra Magic Map accessed March 2024.https://magic.defra.gov.uk/MagicMap.aspx*

•*Natural Resources Wales SSSI PDO citation River USK SSSI accessed October 2024.https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en*

Appendix 1: Proposed layout of new development and planting schedule



Appendix 2 Site Images

Plate 1. Looking North East towards Witham Street

Plate 2. Looking West Towards Feering St.

Plate 3. Access Gate onto Feering Street

Plate 4. Looking North towards Witham Street.

Plate 5 on the boundary with the rear gardens of housing on Witham & Feering St.

Plate 6 Images of the spoil mound

Plate 5. Examples of fly tipping and habitation

Disclaimer

This survey was carried out and an assessment was made of the site described at a particular time. Therefore, the survey should not be regarded as a complete study, rather a snapshot in time.

Every effort has been taken to provide an accurate assessment of the situation pertaining to this site at the specific time of the survey. No liability can be assumed for omissions or changes after the survey has taken place.