Cawston Spinney/Cawston Fox Covert, Local Wildlife Site

Woodland Management Plan

Prepared by:
CSA Environmental and The Environmental Dimension Partnership Ltd

On behalf of:
Tritax Symmetry Ltd, Taylor Wimpey UK Limited, L&Q Estates Ltd, Richborough Estates Ltd, and Homes England

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Part 1
Introduction

Background and Planning Context

P1 This Woodland Management Plan (WMP) has been prepared by CSA Environmental and The Environmental Dimension Partnership Ltd. It has been commissioned by L&Q Estates Ltd and Tritax Symmetry Ltd for and on behalf of Tritax Symmetry Ltd, Taylor Wimpey UK Limited, L&Q Estates Ltd, Richborough Estates Ltd, and Homes England (hereafter known as the 'Developers').

P2 The WMP relates to an area of woodland known as Cawston Spinney/Cawston Fox Covert; a Local Wildlife Site (LWS) and Ancient Semi-natural Woodland of County-level nature conservation value. The woodland is centred approximately at Ordnance Survey Grid Reference (OSGR) SP471726, immediately south west of Rugby (see **Plan 1**).

P3 The woodland resides within one of the strategic allocations of Rugby Borough Council's Adopted Local Plan, June 2019 (Policy DS8: South West Rugby). This policy sets out that proposals must (amongst others), "*provide a Woodland Management Plan setting out how woodland within the boundaries of the allocation, in particular Cawston Spinney, will be protected from potential adverse impacts of new development, including details of a buffer in accordance with Natural England's standing advice on Ancient Woodland and Veteran Trees*."

P4 This is reaffirmed within Paragraph 4.58 of the Adopted Local Plan which states: "*A Woodland Management Plan, details of which will also be included within the South West Rugby Masterplan SPD, will be required for the site. Relevant planning applications should use this management plan as a means of compliance with Policy DS8 and Policy NE1 regarding protection of Ancient Woodland and Veteran Trees*."

P5 The draft SPD, still to be adopted at the time of writing, highlights the importance of Cawston Spinney and states: "*The Woodland management plan, details opportunities to protect and enhance biodiversity. These enhancements are to be measured through the locally derived Defra Biodiversity Net Gain metrics so that any gains can be used to offset any losses from the wider development area. Rugby Borough Council's Tree Officer and Warwickshire County Council Ecology have provided specific advice to inform this SPD. The woodland management plan will form part of the assessment process for planning applications and the extent to which proposals comply with Policies DS8, NE1 and NE2 of the adopted Local Plan and will need to reflect the Green/Blue Infrastructure network as detailed in Policy NE3."*

Scope, Responsibilities and Timescales of the WMP

P6 Acknowledging that the purpose of this document is for planning purposes at this stage, the WMP is based upon the Forestry Commission Woodland Management Plan template[1], to ensure that the proposals for the woodland are in accordance with the principles of the UK Forestry Standard where possible[2].

P7 This WMP will extend for 10 years. It will be subject to an appropriate regime of inspection, monitoring and review of all operations set out within this WMP at suitable intervals, including a formal review at the end of Year 5 in association with key stakeholders including Rugby Borough Council and Warwickshire County Council Ecology Team, as well as other species interest groups and interested parties, where appropriate.

P8 The responsibility for delivering the WMP will be agreed between the Developers and Rugby Borough Council, and the timing of its delivery will be dependent on planning permission being granted and the commencement of development within the allocation. As the woodland is divided into two separate ownerships, it is likely it will come forward for management in phases.

P9 The WMP must be implemented as set out unless otherwise agreed in writing by the Local Planning Authority (Rugby Borough Council).

Conclusion

P10 The WMP describes a scheme of woodland restoration, enhancement and subsequent management necessary to ensure that the woodland is safeguarded for future generations as a valued natural capital asset in the local community. This WMP is considered by EDP Ltd and CSA Environmental to be an appropriate and proportionate response to the request by Rugby Borough Council. Specifically, the WMP will ensure that the condition of the woodland is improved bringing a net gain in biodiversity, that the landscape and visual amenity framework in the locality is maintained, that environmental education opportunities and recreational opportunities are improved, and that human health and wellbeing from access to nature are improved. Those benefits would contribute towards public open space provision within the allocation, and the biodiversity offsetting requirements of the development.

1 https://www.forestry.gov.uk/forestry/infd-9bmjwe
2 https://www.forestry.gov.uk/ukfs

Part 2
Woodland Management Plan

Section 1
General Details, Stakeholder Engagement and Achievements

General Details

1.1 The boundaries and sub-compartments of Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) are shown on **Plan 1**. General details about the overall woodland property and intentions are provided in **Table 1.1**. The south-east tip of the woodland is distinct in containing several ponds, in an area known as Boat House Spinney. Due to its connectivity with Fox Covert this is included within Compartment 2 (sub-compartment 2I and 2J).

Table 1.1: General Details

Document Revision No.	-			
Date of Revision	-			
Reason for Revision	-			
Woodland Property Name	Cawston Spinney/Cawston Fox Covert			
Location	SP471726			
Size (ha)	c.21 ha			
Local Planning Authority	Rugby Borough Council			
WMP period*	From	Jan 2022 (Year 1)	To	Jan 2032 (Year 10)
5 Year Review Date*	Jan 2026			

Table Notes: * The precise dates for the Woodland Management Plan 10-year period, 5-year review date will vary,

Stakeholder Engagement

1.2 The following consultees that have been contacted regarding this WMP and have provided comment or input to its preparation are:

- Rugby Borough Council;
- Warwickshire County Council Ecology Team; and
- Warwickshire Wildlife Trust

Main Achievements

1.3 At the Year 5 review, any main management achievements should be populated in **Table 1.2**.

Table 1.2: Achievements

Objective	Achievement

Section 2
Vision and Objectives

Overall Vision

2.1 The overall vision for Cawston Spinney/Cawston Fox Covert LWS is :

Cawston Spinney and Fox Covert are to be safeguarded, restored and managed in an appropriate manner which ensures the woodland thrives in perpetuity, developing into a vibrant woodland, rich in wildlife and delivering multiple environmental services as well as societal benefits to the local community.

Through sustainable management, Cawston Spinney and Fox Covert will increase in structural diversity, reducing risks from wind blow events or disease attack and providing continuity of woodland cover. The management operations will increase the proportion and diversity of native trees and shrubs, while providing more open spaces and edge habitat for the benefit of native ground flora, invertebrates and birds.

The woodland will be managed for future generations as a prominent and attractive woodland feature within the local landscape and as a community resource for informal low impact recreational and educational use.

Carefully planned and installed infrastructure for management access and recreation will permit future management in a way that least impacts the woodland and allows it to retain an element of wildness through design.

Objectives

2.2 To achieve the overall vision, the woodland objectives are provided in **Table 2.1**.

Table 2.1: Woodland Objectives

Reference No	Feature	Objective	Sub-Compartments.
O1.1	Governance	The WMP is overseen and delivered by a Governance organisation.	N/A
O1.2	Public Engagement	The public understands and values the multi-functional benefits of the woodland and the work of the WMP.	N/A
O1.3	Ecological Assets	A full understanding of the existing value of ecological assets is known. Measures are undertaken to increase ecological value and awareness, particularly for roosting bats, breeding birds, woodland flowers, ponds and the LWS/ANSW designation.	All

Reference No	Feature	Objective	Sub-Compartments.
O1.4	Cultural Heritage Assets	A full understanding of the existing value of heritage assets is known. Measures are undertaken to increase awareness of the cultural heritage associated with woodlands.	All
O1.5	Landscape and Visual Amenity Assets	Measures are undertaken to safeguard, enhance and promote awareness of the woodland's key contribution to the wider landscape fabric.	All
O1.6	Arboricultural Assets	Management promotes the safeguarding of existing and future veteran trees.	All
O1.7	Woodland Management Access	A fully functional network of management access infrastructure is present.	All
O1.8	Aquatic Habitats	A fully functional network of drainage infrastructure is present, complemented by a pond complex of high ecological value.	All
O1.9	Public Access	A fully functional network of public access infrastructure is present	All
O1.10	Non-native Invasive Plants	Species are absent or minimally present.	All, esp. 1C-1F incl. and 2A, 2D and 2E
O1.11	Pests and Diseases	Effects are minimised to acceptable levels.	All
O1.12	Woodland Structure	A diverse woodland structure (age and form) is present throughout.	All
O1.13	Environmental Education and Human Wellbeing	People spend time in the woodland involved in woodland activities and volunteering opportunities.	N/A

Section 3
Baseline Woodland Conditions

Methodology

3.1 To inform the WMP, a suite of specific baseline environmental investigations for the woodland has been undertaken as summarised below, and as contained in the following reports (available in **Appendix 1** to **4**).

- Cawston Spinney Arboricultural Survey (EDP Ltd); July 2018;
- Cawston Fox Covert Woodland Survey (CSA Environmental); July 2018;
- Cawston Fox Covert Arboricultural Survey (CSA Environmental); July 2018; and
- Cawston Spinney/Cawston Fox Covert NVC Survey (RT Ecology); June 2018.

3.2 In addition, EDP undertook a series of Phase 2 ecology surveys for protected species between 2014 and 2016 for land adjacent to the west and south-west of Compartment 1, that have been used to inform this WMP.

3.3 It is envisaged that a focused suite of other baseline environmental studies will be required for Compartment 1 (Cawston Spinney) early in the WMP period, including ecology Phase 2 surveys and desk-based heritage assessment and heritage walkover surveys, subject to the Developers receiving planning permission.

3.4 CSA Environmental also undertook Phase 2 surveys for protected species during 2017 and 2018 to inform development proposals for land to the north, south and east of Cawston Fox Covert. These results were published within an Ecological Impact Assessment (EcIA) report (CSA/3015/03, December 2017). A portion of these surveys were updated for woodland-specific survey information as part of the Woodland Species Survey Report, and all results have been used to inform the management objectives and prescriptions for Compartment 2, herein.

Baseline Conditions (Cawston Spinney and Cawston Fox Covert)

Woodland Structure and Condition

3.5 An overview of the woodland structure and tree form in Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) is provided in **Table 3.1**.

3.6 In summary, Compartment 1 is predominantly native broadleaved woodland with a relatively even age structure comprising mainly ash (*Fraxinus*) (30-80yrs), sycamore (*Acer pseudoplatanus*) (30-70yrs) and hornbeam (*Carpinus*) (50yrs) in the canopy, displaying various forms. There is no obvious evidence of formal woodland management. A notable

over—mature (future veteran) hornbeam is present in the eastern section of Sub-compartment 1E (see **Plan 2**). Sub-compartment 1G contains over—mature (future veteran) 100-year-old sweet chestnut (*Castanea sativa*). There are a few hazel and hornbeam coppice stools in Sub-compartment 1B, 1C and 1D. A small sub-compartment (1A) contains mixed plantation woodland of mainly 40-year-old douglas fir (*Pseudotsuga menziesii*) with good form/clear stems, although notable is the presence of 100-year-old yew (*Taxus baccata*).

3.7 Compartment 2 is predominantly mixed broadleaved woodland with some coniferous species interspersed throughout. The main broadleaf species are ash, sycamore and english oak (*Quercus robur*) with significant localised populations of beech (*Fagus sylvatica*) on better drained ground in the centre of the compartment. Trees throughout the wood date from the late C19 to early C20 with some slightly older oaks in the south-eastern tip around the pond complex (Sub-compartments I and J). Sub-compartment 2C comprises a significant stand of yew with a few interspersed broadleaved species.

3.8 The woodland understorey (shrub layer) of Compartment 1 is sparse and poorly developed. box (*Buxus sempervirens*) is locally dominant in the western compartments. An extensive area of rhododendron (*Rhododendron ferrugineum*) and snowberry (*Symphoricarpos*) is present in Sub-compartments 1C, 1D and 1E and there are localised pockets of these species within 2A, 2D and 2E (see **Plan 3**). Within Compartment 2, the understorey is dense in places (particularly Sub-compartments 2A and 2D which are dominated by clusters of holly (*Ilex*) and box) and there are scattered patches of tree regeneration (mostly sycamore). Due to the closely spaced upper canopy specimens there are few replacement trees in the mid-storey meaning that Fox Covert lacks some structural and age diversity. The ground layer of Compartment 2 contains a good population of bluebell (*Hyacinthoides*) in the northern half on the lighter soils, interspersed with bramble (*Rubus*) and nettle (*Urtica dioica*) which tend to have dominated ground under open canopy, for example where over-storey trees have fallen over.

3.9 Evidence of ash dieback in the canopy of young ash trees was noted close to the southern boundary of Sub-compartment 1E and is assumed present throughout the woodland. Grey squirrel was seen feeding on pinecones high in the canopy 1A and a number of trees in the 10–40 year bracket showed signs of squirrel damage throughout Compartment 1; of the broadleaves present, sycamore and sweet chestnut are particularly vulnerable and favoured by the species. Evidence of deer grazing was present throughout the Compartment by the lack of establishing regeneration and recruitment to the understorey of native/naturalised broadleaves, where access by deer was not impeded by dense rhododendron. Species are not known but likely to include muntjac and roe. Deer have been seen within Compartment 2, however, grazing pressures appear to be less than for Compartment 1.

Table 3.1. Woodland Structure Overview

Main Woodland Type	%/ha of Compartment 1 Area	Age Structure (Even/Uneven)	Sub-Compartments	Notes
Compartment 1 (Cawston Spinney)				
Mixed Plantation	7%/0.6ha	Even	1A	Mainly c.40-year-old Douglas Fir with good form and clear stems.
Native Broadleaved	93%/7.4ha	Even	1B to 1G incl.	Part ASNW.
Totals	100%/8.0ha	-	-	-
Compartment 2 (Fox Covert)				
Coniferous	6%/0.9ha	Even	2C	Stand of yew with interspersed broadleaves.
Mixed Broadleaved	94%/13.3ha	Even	2A, 2B, 2D to 2K incl.	Mainly ash, sycamore and oak with localised beech. Scattered clusters of conifers. Part ASNW.
Totals	100%/14.2ha	-	-	-

Arboricultural Conditions (Peripheral Trees)

3.10 Around the periphery of Compartment 1, the EDP Arboricultural Survey has identified 146 individual trees and 18 groups of trees, totalling 164 items. Of these 164 items, 2 have been categorised as A, of high quality and value; 87 have been categorised as B, of moderate quality; and 61 have been categorised as C, of low quality. In addition, 14 items have been categorised as U and due to their impaired condition are considered unsuitable for retention.

3.11 Around the periphery of Compartment 2, the CSA Environmental arboricultural appraisal covered 27 trees and 15 tree groups. Almost all woodland edge groups were assessed to be of Category A value, due to their collective landscape benefits and the fact that they have a life expectancy of at least 40 years. The groups have a regular distribution of A category trees, albeit interspersed with some lower quality B and C category trees; they are therefore still allocated A category overall, as the highest quality trees define the value of the whole group. One tree group (sub-compartment 2K) and two trees (both in 2A) were categorised as B.

Ecological Conditions

3.12 The woodland is not covered by any statutory designation, and there are no international designations within 10km. Draycote Meadows Site of Special Scientific Interest (SSSI), designated for grassland and butterflies, is situated 1.2km to the south-west. Both Compartments are entirely coincident with the Cawston Spinney LWS, a non-statutory designation of County-level value, and large parts of the Compartment are Ancient & Semi-natural Woodland (ASNW) (see **Plan 2**). However, as described above, the woodland condition is suffering from lack of management, invasive plant species, ash dieback, deer grazing and grey squirrel damage. It is likely that the parts of Compartment 2 not covered

by ASNW designation (i.e. sub-compartment 2B, C, E and G) would classify as Plantations on Ancient Woodland Sites (PAWS).

3.13 There are six vegetation types recorded within the woodland, categorised to four different NVC categories, as follows (taken from the NVC survey report). The yew component of 2C was excluded as it is extremely species-poor, of artificial origin and corresponds poorly to the yew woodland (W13) of NVC.

- **W8e** (type 1; Sub-compartment 1F, 2A). *''...clearly of secondary origin... The field layer is characterised by rank growth of stinging nettle, cleavers, rough-stalked meadow-grass and ivy, with cow parsley being conspicuous in areas where the canopy is more open. Woody species are broadly the same as occurring elsewhere within the wood but tend to include greater cover and frequency of wych elm and elder than in other parts of the wood.''*

- **W8a** (type 2; the majority of Compartment 1, small pockets within 2A, 2B, 2H, 2I, 2J). *''This vegetation type is characterised by the clear dominance of ash in the canopy with reduced amounts of sycamore and wych elm compared with vegetation type 1. There is plentiful elder (although at reduced cover compared with vegetation type 1) and box in the shrub layer and abundant and constant dog's mercury and rough-stalked meadow-grass in the field layer.''*

- **W10** (type 3; peripheral areas of Compartment 1, the majority of Compartment 2). *''This is characterised by the constancy of ash and sycamore in the canopy, sycamore regeneration and holly Ilex aquifolium in the shrub layer and bramble, bluebell and sycamore seedlings in the field layer. Pedunculate oak and beech are also frequent in the canopy, with box, elder, hazel, common hawthorn and sometimes rhododendron in the shrub layer.''* However, it is notable that beech and oak are absent or minimally present in the canopy in W10 in Compartment 1, compared to Compartment 2.

    - (type 3a, Sub-compartment 2B). "*This vegetation type is similar to type 3 and grades into it. The field layer is similar to that of vegetation type 5, but the present community lacks the overwhelming dominance of beech that is characteristic of the latter.*"

    - (type 4, Sub-compartment 2H). *"This occurs in a small part of the eastern arm of the wood where bracken and bramble dominate the field layer, the shrub layer is virtually non-existent and the canopy includes substantial cover resulting from past conifer planting which is now mature."*

- **W14** (type 5, Sub-compartments 2F and 2G). "*This vegetation type is characterised by the clear dominance of beech, either as the sole canopy-forming tree or with lesser amounts of other trees including pedunculate oak. Bluebell is the clear field layer dominant and the shrub layer is poorly-developed although holly is present in places. Elder only occurs in locations around the periphery, especially where light levels are greater."*

3.14 Six species of fungi were recorded across both Compartments 1 and 2.

3.15 EDP Phase 2 ecology surveys for protected species in 2014-2016 recorded a number of protected and Priority Species populations/assemblages on land adjacent to the west and south-west of Compartment 1 as described in **Table 3.2**. It is likely that Compartment 1 in part also supports these populations/assemblages.

Table 3.2: Protected and Priority Species Populations/Assemblages (adjacent to Compartment 1)

Receptor	Key Attributes	Nature Conservation Value
Wintering Bird Assemblage	Sixteen conservation-notable/Schedule 1 species in moderate numbers typical for the locality.	District
Breeding Bird Assemblage	Nine conservation-notable species in moderate numbers typical for the locality.	District
Foraging Bat Assemblage	Six species in moderate numbers typical for the locality; no rare species.	District
Roosting Bat Assemblage	Two common and widespread species present in low numbers; contributes to local biodiversity.	Local
Otter (*Lutrinae*)	Present around the reservoir; contributes to local biodiversity.	Local
Grass snake (*Natrix natrix*)	Large population using ditch network and waterbodies.	County

3.16 Water vole, dormouse and great crested newt were not recorded during surveys relating to Compartment 1 and are considered absent. In particular, the dormouse surveys included the periphery of Compartment 1.

3.17 CSA Environmental Phase 2 ecology surveys for protected species encompass a suite of surveys undertaken in 2017 and 2018 for land adjacent to the north, south and east of Compartment 2, with the exception of bat activity surveys which included the Cawston Fox Covert Woodland, as described in **Table 3.3**. Additional woodland-specific survey work was undertaken for Compartment 2 in 2018, as described in **Table 3.4**.

Table 3.3: Protected and Priority Species Populations/Assemblages (adjacent to Compartment 2)

Receptor	Key Attributes	Nature Conservation Value
Breeding Bird Assemblage	Five conservation-notable species in low numbers, typical of the locality.	Local
Foraging Bat Assemblage	At least eight species, concentrated activity within woodland and woodland edge. Moderate numbers typical for the locality and habitats present.	Local
Otter	Present along a ditch to north; contributes to local biodiversity.	Local
Reptiles	Grass snake present; contributes to local biodiversity.	Local

Table 3.4: Protected and Priority Species Populations/Assemblages (within Compartment 2)

Receptor	Key Attributes	Nature Conservation Value
Breeding Bird Assemblage	Six conservation-notable species in moderate numbers, typical of the locality.	District
Roosting Bat Assemblage	Extensive roosting opportunities available throughout the woodland. No confirmed roosts identified but potential roosting behaviour noted within an ash tree in sub-compartment 2H.	N/A
Badger	Badger setts present to north of Compartment 2 and scattered along woodland periphery.	N/A

3.18 Water vole and great crested newt were not recorded during surveys relating to Compartment 2 and are considered absent.

Other Environmental Conditions

3.19 **Soils and Geology:** The woodland is situated in an area containing Soilscape 22 'loamy soils with naturally high groundwater', these Soilscapes generally describe the immediate 30cm below the natural ground surface[3]. Below this, lies a superficial ('drift') formation of alluvium (compressible silty clay, but can contain layers of sand, peat and basal gravel) and Dunsmore gravel (clay-rich flinty gravel with lenses of coarse sand). The Dunsmore gravel drift is thought to be generally 1–3m deep. The underlying bedrock formation is Charmouth Mudstone (laminated shales, and mudstones; locally occurring limestone beds/ironstone or organic-rich paper shales at some levels or finely sandy beds); thought to be present to a depth >300m[4].

3.20 **Elevation, Topography and Drainage**: Compartment 1 occupies an elevation of approximately 115m AoD at the eastern boundary and 105m AoD at the western boundary, such that there is gentle slope across the Compartment from east to west. In addition, there is a steep north-south slope in Sub-compartment 1G from the higher ground at the agricultural field boundary down to the drainage channel. Compartment 2 has a more gentle topography and largely occupies an elevation of 115m AoD.

3.21 In general terms, Compartment 1 becomes wetter underfoot from east to west which is consistent with the fall in elevation. There is a drainage network throughout the Compartment, flowing in a generally east-west direction towards the reservoir. The main east-west arterial drain occupies the low point of the Compartment and was flowing but shallow (a few centimetres) at the time of the EDP woodland survey. Smaller drains (in Sub-compartments 1E and 1F) were dry at the time of the survey, whilst small drains in Sub-compartment 1D were flowing out northwards but shallow.

3.22 Despite unseasonably dry and hot conditions with little to no rainfall throughout June and July, it was noticeable during the woodland survey that ground conditions were remarkably

[3] http://www.landis.org.uk/soilscapes/
[4] http://mapapps.bgs.ac.uk/geologyofbritain/home.html

wet underfoot in Sub-compartment 1F, where a small seepage area was present, and along the southern boundary of Sub-compartment 1G near the reservoir at the bottom of the slope. A small pool was also present below a windblown tree root-plate near the main arterial drain in Sub-compartment 1E indicating groundwater still close to (just below) the ground surface (see **Plan 2**). The drain between Sub-compartments 1B and 1G is particularly steep, deep and incised and was dry at the time of survey.

3.23 Compartment 2 is also influenced by aquatic habitats. There is a wide boggy strip of surface water in the north corner of the Wood (Sub-compartment 2A) running south-west along the northern edge, making this a localised patch of wet woodland. Another ditch runs along the south-western boundary into the south-eastern corner. Several ponds have been formed in this area, seemingly a mix of natural and man-made formation, which are fed by the ditch. Most are fairly stagnant with large amounts of silt and organic matter from the overhanging trees. The pond complex in 2J is heavily over-shaded by encroaching willow trees and scrub but has good potential for enhancement and was used by multiple pairs of nesting mallard.

3.24 **Cultural Heritage and Archaeology**: There are no statutory heritage assets at nor within c.1km of the woodland. Clearly, being ASNW, most of the woodland has been present since the 1600s, and invariably will have been worked since at least 1600, predominantly for wood fuel as with most deciduous woodland of this age in Britain. Historic maps from the period 1887 – 1889 indicate the extent of the woodland is very similar, with the exception of woodland in Sub-compartment 1b being absent as well as the reservoir[5]. No immediately obvious historic physical features were identified (such as charcoal platforms) but a systematic survey for such features was not undertaken. Sub-surface archaeological remains (non-statutory heritage assets) may be present.

3.25 **Landscape and Visual Amenity**: At a local level, the 'Landscape Assessment of the Borough of Rugby Sensitivity and Condition Study' (the 'LCA') published in 2006 remains the definitive landscape character assessment for the Borough of Rugby. Cawston Spinney is located almost entirely within the landscape character types (LCT) 'Dunsmore Plateau Fringe' whilst Cawston Fox Covert is located almost entirely within the LCT 'Dunsmore Plateau Farmlands'. One of the 'Key Characteristics' of the Dunsmore Plateau Farmlands LCT (Cawston Fox Covert), includes ''*Large blocks of ancient woodland*'', but also includes some urbanising features within the local context, including major road corridors, industrial and large-scale agricultural land use and a number of man-made features being visible.

3.26 The 'condition map' in the LCA shows that Cawston Spinney and Cawston Fox Covert occur in a broader landscape that is 'declining' overall, and far removed from its optimal state, which is supported by observations in the field. However, Cawston Spinney and Cawston Fox Covert are robust landscape features which contribute a quantum of clear value to the local landscape.

3.27 The woodland does not occupy a strongly elevated nor strongly recessed position in the landscape, and the woodland is a robust feature in the predominantly agricultural/urban fringe landscape. Unsurprisingly, intervisibility between it and surrounding land does occur from most areas within 1km, particularly across the currently open views from the south

[5] https://www.old-maps.co.uk/#/Map/447500/273500/12/100354

and south-west. Views do become more glimpsed and filtered by hedgerows, isolated trees and isolated buildings with increasing distance, particularly beyond c.1km, for example from the Public Right of Way to the north.

3.28 **Public Rights of Way, Recreational Usage and Fencing**: A Public Right of Way (PRoW) along a vehicular access track is situated adjacent to the eastern boundary of Compartment 1 (Cawston Spinney) and divides it from Compartment 2 (Cawston Fox Covert). See **Plan 2**. No visitor number surveys have been undertaken but walkers/dog-walkers have been observed using this PRoW regularly. Compartment 2 has a network of permissive paths throughout with wider footpath links at the southern end. It is also connected to a small 'pull-in' car park along Cawston Lane and regular recreational use has been observed primarily by dog walkers.

3.29 During EDP's woodland surveys, various informal recreational usages were recorded across most of the eastern sub-compartments, where the ground is drier than the west of the Compartment. These activities include evidence of air rifle shooting, barbecues, camping and fly tipping but was most pronounced in Sub-compartment 1C, where the ground is compacted and devoid of vegetation. Though no fire damage was seen, it is possible in the future. There is no boundary fencing around any of Compartment 1, so access from the PRoW is straightforward. Within Compartment 2 there was minor evidence of camping or rough sleeping within Sub-compartment 2E (see **Plan 2**).

3.30 **Access for Woodland Management and Fencing**: There are no formal vehicular access tracks into Compartment 1 (Cawston Spinney) which otherwise would be utilised for woodland management activities. It was not possible to confirm the condition of drainage channel crossings for vehicular access, but at least one small crossing is present where the boundaries of Sub-compartment 1C, 1E and 1G converge.

3.31 There are various pedestrian access points into Compartment 2 but vehicular access would be difficult using the current network of paths. There is no fencing within the woodland interior, though fencing and hedgerows are used to mark the boundaries with adjacent arable land, some of which is used for livestock grazing.

Section 4
Woodland Risks and Protection

4.1 This Section describes the risks to the restoration and management of the woodland and the measures necessary to avoid/minimise the risk, thereby safeguarding the woodland, and the WMP vision. The LWS and ASNW status and condition of Compartments 1 and 2, are currently comprised of a number of factors, as described below.

Plant Health

4.2 In the absence of appropriate woodland management, the extensive areas of rhododendron and snowberry already present within parts of Compartment 1 and 2 will likely spread (see **Plan 3**). Both species are non-native and undesirable and are physically out-competing native ground flora and natural tree regeneration for light and space. In the case of rhododendron, it is particularly vigorous, casting dense shade, produces dense leaf litter, which is thought to be toxic to mammals, and is a prolific seed producer so spreads easily. Rhododendron itself is also a carrier for *Phytopthera* tree funguses that infect and kill trees. Wherever it persists, studies have shown it reduces biodiversity.

4.3 In the absence of appropriate woodland management, the ash dieback fungus in the canopy of young ash trees will spread. Ash is the co-dominant species in the canopy and therefore the tree stock is particularly at risk over the next few years as the disease spreads rapidly.

4.4 Ongoing climate change (warmer and wetter conditions) is likely to favour the emergence of other tree pathogens, though at present it is difficult to predict the effect.

Deer and Squirrels

4.5 In the absence of appropriate control measures, deer grazing of natural tree regeneration and grey squirrel damage of young/maturing trees threatens the recruitment of new tree stock to the middle and upper age tiers of the canopy. In the short term, age diversity and structure become less diverse as mature and over-mature specimens dominate. In the longer term, as those existing over-mature specimens are lost, there will be no replacement of the canopy.

Water and Soil

4.6 Soil compaction has already occurred in the east of Compartment 1 (Cawston Spinney) due to recreational usage and this will continue in the absence of an appropriate strategy. With climate change predictions for more intense precipitation events, there is increased risk of soil erosion in the immediate and longer term, in the absence of an appropriate strategy.

4.7 Within Compartment 2 soil erosion is exacerbated by recreational use of paths and dog access to open water, which will need to be controlled and managed as further residential development comes forward.

4.8 The aquatic habitats on-site are heavily shaded and enriched by leaf-litter. With continued lack of management, it is likely that the biodiversity of the ponds and ditches will decline further.

Environmental

4.9 An in-combination effect of the aforementioned factors, and factors mentioned below, is the potential for a reduction in biodiversity which in turn threatens the status and quality of the woodland as an LWS and ASNW.

4.10 With climate change predictions for more intense storm events, there is increased risk of windblow damage in the immediate and longer term, in the absence of an appropriate strategy.

Social/Public Access

4.11 In the absence of an appropriate engagement strategy and managed access, the proposed development around the woodland increases the risk of inappropriate anti-social and informal recreational usage of the woodland, causing damage to soils and vegetation, vandalism to trees, disturbance to wildlife (e.g. badgers), and reducing the appeal and aesthetic value of the woodland due to presence of rubbish/fly tipping and anti-social behaviour. Though no fire damage was evident, it may occur in the future.

4.12 Access to Compartment 1 (Cawston Spinney) is obtained from the PRoW as there is no boundary fencing around Compartment 1. Access to Compartment 2 is already well-defined. A significant issue with littering, dog fouling or vandalism has not been noted at present although there are small amounts of littering.

4.13 There is a risk of accidental or deliberate introduction of non-native species to the woodland from increased visitor use and from gardens associated with the proposed housing around the woodland.

4.14 Compartment 2 contains large areas of bluebells which are of high ecological and amenity value. Many of the notable woodland flora within the woodland are intolerant of trampling and there is a risk that, in the absence of a suitable strategy, continued erosion and migration of footpaths, or other types of recreation, could damage this resource.

4.15 With increased public recreation, there is increased potential for conflict with hazardous trees, particularly along footpaths and access points.

Risk Matrix Summary

4.16 The level of risk that the aforementioned threats pose to Compartments 1 and 2 are described in **Table 4.1**, which has informed the preparation of appropriate management strategies to avoid/reduce the level of risk, and meet the management objectives, as described in **Section 5**.

Table 4.1. Summary of Risk Ratings

Threat	Likelihood of Presence (L>M>H)	Magnitude of Effect (L>M>H)	Initial Risk Rating	Compartments.	Proposed Response
Non-native Invasive Plants	H	H	H	1, 2	See Section 5
Ash Dieback and Phytopthera	H	H	H	1, 2	
Deer Grazing	H	H	H	1, (2)	
Grey Squirrel Damage	H	M	M	1, (2)	
Soil Compaction/Loss	M	L	L/M	1, 2	
Loss of Biodiversity	H	H	H	1, 2	
Deterioration of Other Environmental Assets	M	L	L/M	1, 2	
Flooding	H	M	M	1, 2	
Anti-social Behaviour and Vandalism	H	M	M	1, 2	

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Section 5
Management Strategy

5.1 To meet the WMP vision, management objectives, and avoid/reduce effects of identified threats, a detailed range of management strategies (prescriptions) are required. These will be developed as part of a detailed Plan of Operations (Works Programmes) to be drawn up with the managing contractor and agreed in advance with Rugby Borough Council and Warwickshire County Council Ecology Team (not therefore included here but nominally identified as **Appendices 5** and **6**). A summary of this management strategy setting out the framework for these operations is provided below.

Management Strategy

5.2 The specific management prescriptions to achieve the objectives and in turn contribute to the vision for the LWS, are detailed in **Table 5.1**.

5.3 The precise dates for the Woodland Management Plan 10-year period, and when the management prescriptions in **Table 5.1** will occur, depend upon planning permission being granted for the Developers and the implementation of adjacent developments. It is anticipated that woodland management will be phased and that different compartments will enter 'Year 1' of the new management regime at different times. The prescriptions in **Table 5.1** will need to be completed phase by phase, with management actions co-joined at a later point when the final woodland owner/manager has been identified.

Table 5.1: Management Strategy (Compartments 1 and 2)

Ref. No	Feature	Management Intention (Prescription), Timings and Frequency	Sub-Compartments
O1.1	Governance	In Year 1, form a Governance organisation/partnership to oversee delivery of the WMP (initially likely to include the developer, woodland contractor/agent and ecologist) . Meet quarterly during Year 1 with subsequent meetings to be agreed at an appropriate frequency, as required.	N/A
O1.2	Public Engagement	In Year 1, design a program of public engagement to communicate the work of the WMP and the woodland's value to the community. Erect signage from Year 1 to explain all significant management works. At least annual events to be held from Years 2 to 10.	N/A
O1.3	Ecological Assets	In Year 1, undertake further targeted ecological surveys for protected/Priority Species (principally roosting bats and invertebrates; May-Aug inclusive) to inform the delivery of the WMP. Then from Year 2 implement measures through the WMP to increase value of and understanding/interpretation of all ecological	All

Ref. No	Feature	Management Intention (Prescription), Timings and Frequency	Sub-Compartments
		assets to Year 10. Monitor the implementation of a minimum 15m buffer from the woodland edge as development comes forward, helping to ensure that new habitats are created and promoting the importance of this buffer. Seek opportunities to include this buffer in the Woodland Management Plan, where possible.	
01.4	Cultural Heritage Assets	In Year 1, undertake further heritage investigations to inform the delivery of the WMP including site walkover survey, desk-based assessment, and if required, geophysical survey. Then from Year 2 implement measures through the WMP to secure and increase the understanding/ interpretation of the cultural heritage and archaeology assets to Year 10.	All
01.5	Landscape and Visual Amenity Assets	From Year 2, implement measures through the WMP to increase understanding/ interpretation of the value of the woodland as a key component in the wider landscape fabric to Year 10.	All
01.6	Arboricultural Assets	From Year 2, implement specific measures through the WMP to secure and effectively manage the veteran tree stock. Ensure the detailed Works Programme addresses this and will increase understanding/ interpretation of the value of the tree stock to Year 10.	All
01.7	Woodland Management Access	From Year 2, create and then maintain formal woodland management access tracks and bridges as different woodland areas are brought into formal management under the WMP. Existing PRoW may be subject to future diversions, as agreed, to manage movement and access. Complete maintenance inspections of access tracks twice a year as a minimum and following storm events (severe amber or red weather warnings for wind/rain/snow); remediation of faults as necessary.	All
01.8	Aquatic habitats	In Year 2, commence restoration and maintenance of a fully functioning drainage network to ensure that a variety of wet and dry woodland habitats persist to Year 10. Maintenance inspections of channels twice a year as a minimum and following storm events (severe amber or red weather warnings for wind/rain/snow); remediation of faults as necessary. Selective removal of detrimental trees/shrubs around ponds to improve light levels. Consider dredging. Maintain Sub-compartment 2J as a wildlife area by retaining boundary screening vegetation.	All

Ref. No	Feature	Management Intention (Prescription), Timings and Frequency	Sub-Compartments
01.9	Public Access	From Year 2, create and maintain a formal network of public paths and strategic planting within Cawston Spinney to appropriately manage public access. Undertake path improvements within Cawston Fox Covert. Such works to be prioritised within 18 months of woodland areas entering formal management under the WMP, Existing PRoW may be subject to future diversions, as agreed, to manage movement and access. Maintenance inspections once a year as a minimum and following storm events (severe amber or red weather warnings for wind/rain/snow); remediation of faults as necessary. Undertake tree risk surveys annually and after severe weather; remediation as appropriate.	All
01.10	Non-native Invasive Plants	In Year 2, commence and continue control of invasive plants (including **rhododendron** and **snowberry**) to an acceptable level of minimal presence or absence by Year 5 and beyond. Monitor presence of other invasive species alongside normal management works and implement management programme as appropriate.	All
01.11	Pests and Diseases	From Year 2, commence and continue to monitor presence of pests and diseases (including **ash dieback**, **deer** and **grey squirrel**) quarterly. Control/take remedial action to reduce effects by Year 5 and beyond; control intensity, may reduce if success is achieved in first few years. Control for **ash dieback** may include pre-emptive felling and re-stocking with native broadleaves (by planting /propagation of and/or/selective thinning in favour of). **Deer** populations to be monitored and managed through Deer Impact Assessments. Control for deer to include temporary fencing/tree guards of areas of restocking. Trial exclusion plots or brash of stools if impacts are high. **Grey squirrel** impacts to be monitored and squirrel control to be implemented and carefully explained with public engagement, if required.	All

Ref. No	Feature	Management Intention (Prescription), Timings and Frequency	Sub-Compartments
01.12	Woodland Structure	From Year 2, commence and continue **thinning and re-stocking** with native broadleaves (by planting/propagation of and/or/selective thinning in favour of) to create a diverse age structure in the canopy and understorey layer by Year 10. Improve boundary hedgerows.	All
01.13	Environmental Education and Human Wellbeing	From Year 2, commence and continue a program of woodland activities and volunteering opportunities targeted at community groups to promote education and wellbeing. Frequency dictated by level of interest.	N/A

Section 6
Monitoring and Review

Woodland Monitoring

6.1 The specific monitoring methods and frequency required to ensure the management objectives and overall vision are being achieved are described in **Table 6.1**. As woodland management will be phased, the monitoring prescriptions in **Table 6.1** will need to be completed phase by phase, with monitoring actions co-joined at a later point when the final woodland owner/manager has been identified."

Table 6.1: Woodland Monitoring

Objective and Feature	Indicator of Progress/Success	Assessment Method and Frequency	Responsibility
O1.1 Governance	In Year 1, form a Delivery committee/partnership to finalise plans for the implementation of the WMP. Meet quarterly through Year 1, with subsequent meetings to be agreed at an appropriate frequency, as required.	Publication of formal review findings at Year 5 and 10.	WGC
O1.2 Public Engagement	In Year 1 establish a programme of public engagement to communicate the work of the WMP, with annual events to be organised in Years 2 to 10.	Recording and monitoring of visitor engagement.	DP
O1.3 Ecological Assets	Increase in extent of ground flora and plant diversity. Woodland supports opportunities for roosting bats, and breeding birds. Assess progress with the creation of the 15m buffer around the existing woodland containing new habitats.	Annual visual condition monitoring; formal ecology surveys at Year 5 and 10.	DP
O1.4 Cultural Heritage Assets	No deterioration in quality/extent of heritage assets. Understanding increased.	Annual visual condition monitoring.	DP
O1.5 Landscape and Visual Amenity Assets	No deterioration in quality/extent of assets.	Annual visual condition monitoring.	DP
O1.6 Arboricultural Assets	Existing and future veteran tree specimens identified and safeguarded.	Annual visual condition monitoring; formal tree survey at Year 5 and 10.	DP

Objective and Feature	Indicator of Progress/Success	Assessment Method and Frequency	Responsibility
O1.7 Woodland Management Access	Improvements to and creation of new access tracks in Year 1 to 10.	Minimum biennial visual condition surveys (improvements measured and recorded).	DP
O1.8 Aquatic Habitats	Improved functioning drainage network in Year 1 to 10. Improved biodiversity value score of ponds.	Minimum biennial visual condition surveys. Ecology survey of ponds at Year 5 and 10.	DP
O1.9 Public Access	Improvements, diversions and creation of new footpaths in Year 2 to 10.	Minimum biennial visual condition surveys (all changes measured and recorded).	DP
O1.10 Non-native Invasive Plants	Non-native plants eradicated or reduced to minimum levels of presence (<10% of the LWS) by Year 10.	Biennial visual condition surveys.	DP
O1.11 Pests and Diseases	Reduced/minimised evidence of squirrel/deer damage.	Biennial visual condition surveys.	DP
O1.12 Woodland Structure	Diverse age structure and tree forms present throughout by Year 10.	Annual woodland surveys.	DP
O1.13 Environmental Education and Human Wellbeing	Regular events run each year with good attendance and overall positive feedback.	Feedback forms at each event.	DP

Table Notes: WGC Woodland Governance Committee; DP delivery partner(s) such as woodland contractor, Ecologist, stewardship company.

6.2 As the woodland will enter the WMP in phases, the timetable for the actions above may need to be altered to identify the logical timing for any review of the Plan. Any change will be subject to written agreement from the Local Planning Authority (Rugby Borough Council). When the final woodland owner/manager has been identified and the woodland is transferred, an update to the WMP will be carried out at this stage.

Formal Review Mechanism for the WMP at Year 5 and Year 10

6.3 The Governance organisation will formally review the WMP at Year 5 and Year 10, publish findings and recommendations, and amend the WMP as necessary to ensure the overall vision is achieved/maintained. To inform the review, the woodland surveys and a selection of ecological surveys will be repeated at Year 4 and Year 9 by suitably experienced surveyors.

Appendix 1
Cawston Spinney Arboricultural Survey (EDP Ltd)

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Rugby South (Cawston Spinney Woodland) Technical Note in Respect of Arboriculture edp4823_r001a

1 Introduction

1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Tritax Symmetry Ltd ('the Developer') to undertake a *BS 5837:2012 Trees in Relation to Design, Demolition and Construction* compliant survey of the trees on the perimeter of an area of woodland known as Cawston Spinney Woodland/Fox Covert (hereafter referred to as 'the Woodland').

1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff, Cheltenham and Shrewsbury. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk).

1.3 The Woodland is located south of Cawston, a village to the south-west of Rugby, and lies within the administrative boundary of Rugby Borough Council (RBC). The Woodland and the surrounding land are a preferred strategic allocation for RDC's emerging Local Plan.

2 Aims and Objectives

2.1 The purpose of this Technical Note is to provide tree constraints information which will feed into a Woodland Management Plan (WMP) for the Woodland.

2.2 This WMP will be submitted to RBC in order to progress the preferred allocation through the Local Plan process and safeguard the Woodland's future.

3 Methodology and Limitations

3.1 The methodology adopted for this survey is based on guidelines set out in *BS 5837:2012 Trees in Relation to Design, Demolition and Construction*, especially Section 4.4, 'Tree Survey'. Site trees and other significant vegetation are as noted on the Tree Constraints Plan (**Annex EDP 1**). This is derived from the topographic survey data included as **Annex EDP 2**. All surveyed items are detailed in Schedule EDP 1 (**Annex EDP 3**). No other trees are covered by this survey.

3.2 All trees have been visually inspected from ground level unless otherwise stated, with no climbing or further detailed investigative tests being undertaken. The comments on their condition are based on observable factors present at the time of inspection. All measurements

are metric and have been recorded in accordance with the measurement conventions set out in Section 4.4.2.6 of *BS 5837:2012*.

3.3 Any recommendations given regarding longer-term management are made on the basis of optimising the life expectancy of site trees, given their current situation and any effects that may result from the development proposals.

3.4 Schedule EDP 1 provides information about the following factors in accordance with paragraph 4.4.2.5 of *BS 5837:2012*:

- Sequential reference number (recorded on **Annex EDP 1**);
- Species;
- Height;
- Stem diameter;
- Branch spread;
- Existing height above ground level;
- Life stage;
- Physiological condition;
- Structural condition;
- Preliminary management recommendations;
- Estimated remaining contribution;
- Category grading; and
- Tree works priority codes.

Limitations

3.5 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 24-month period from the survey date. Any alterations to the Site or the development proposals could change the current circumstances and may invalidate this report and any recommendations made.

3.6 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.

3.7 A lack of recommended work does not imply that a tree is safe and likewise, it should not be implied that a tree will be made safe following the completion of any recommended work.

3.8 The subject trees have not been tagged for identification purposes.

4 Planning Policy and Statutory Protection

National Planning Policy Framework

4.1 The National Planning Policy Framework (NPPF) assumes protection of all irreplaceable habitats unless there are exceptional reasons for not doing so. The importance of ancient woodlands as an irreplaceable habitat is set out in paragraph 175c of the NPPF, which states:

"Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists."

4.2 Review of the MAGIC website confirms that part of the Woodland is designated as Ancient and Semi-Natural Woodland (ASNW). The extent of the designation is illustrated in **Annex EDP 4**.

Tree Preservation Orders and Conservation Areas

4.3 Correspondence with RBC confirms that there is a Tree Preservation Order (TPO) registered against the Woodland, excluding the western spur that extends north of the reservoir. The extent of the TPO can be seen in the documentation attached as **Annex EDP 5**. Furthermore, for ease of interpretation, all items affected by the TPO have been illustrated on **Annex EDP 1** with a yellow box around the identification number.

5 Overview of Tree Stock

5.1 The survey has identified 146 individual trees and 18 groups of trees, totalling 164 items. Of these 164 items, 2 have been categorised as A, of high quality and value; 87 have been categorised as B, of moderate quality; and 61 have been categorised as C, of low quality. In addition, 14 items have been categorised as U and due to their impaired condition are considered unsuitable for retention, irrespective of development.

5.2 An illustrative summary of the species diversity, age distribution and grading categorisation for the site is provided in **Annex EDP 6**.

5.3 All surveyed items are as noted on **Annex EDP 1** and detailed in Schedule EDP 1 (**Annex EDP 3**).

6 Site Constraints

6.1 Of the items surveyed, 2 have been identified as category A, of high quality and value and a further 87 items have been identified as category B, of moderate quality and value. All trees provide landscape, environmental and/or amenity value to their surroundings, but the retention and protection of both category A and B items should be prioritised due to their condition, age and retention span.

6.2 All off-site items indicated on **Annex EDP 1** remain outside of the direct control of the scheme, however, their above- and below-ground constraints will need to be considered during the design process.

6.3 The required RPA for each item is as described in Schedule EDP 2 (**Annex EDP 7**) and is depicted on **Annex EDP 1**. Any future plans for development should take account of the constraints posed by these RPAs, which will be enforced through the installation of protective barriers in accordance with the recommendations given in Section 6.2 of *BS 5837:2012*.

6.4 Ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD[1] and includes ancient semi-natural woodland and PAWS. 'Wooded continuously' doesn't mean there has been a continuous tree cover across the whole site. Not all trees in the woodland must be old. Open space, both temporary and permanent, is also an important component of ancient woodland[2].

6.5 In respect of ancient woodland, the standing advice from Natural England and the Forestry Commission[3] recommends that an appropriate buffer zone of semi-natural habitat is implemented between the development and the ancient woodland (depending on the size of the development, a minimum buffer should be at least 15 metres), therefore a 15m buffer from the woodland edge is reflected on **Annex EDP 1**.

6.6 The RPA/buffer area for the ancient woodland should be allowed to develop into a semi-natural habitat. Developments such as gardens should not be included within the RPA/buffer as there is limited control over how they may be used or developed in the future.

7 Conclusion

7.1 Of the items surveyed, 2 have been identified as category A, of high quality and value and a further 87 items have been identified as category B, of moderate quality and value.

[1] Spencer & Kirby (1992)
[2] https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#history
[3] https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#history

Both category A and B items should be prioritised for retention due to their condition, age and retention span.

7.2 A significant proportion of the woodland has been classified as ancient woodland, the extent of which is depicted in **Annex EDP 1**.

7.3 A significant proportion of the woodland is protected by a Tree Preservation Order (TPO), the details of which are provided as **Annex EDP 5**. The items affected by the TPO are illustrated on the plan provided as **Annex EDP 1**.

7.4 The arboricultural constraints information provided with this Technical Note will feed into a woodland management plan to progress the preferred allocation through the Local Plan process and safeguard the Woodland's future.

Annex EDP 1
Tree Constraints Plan
(edp4823_d001b 26 May 2020 GY/RC)

Legend

- Site Boundary
- T1 Tree/Group Number
- Tree/Group Canopy
- Tree Stem
- Root Protection Area
- Category A: Trees of high quality and value
- Category B: Trees of moderate quality and value
- Category C: Trees of low quality and value
- Category U: Trees of poor quality and value
- TPO Trees
- Ancient Woodland
- Natural England Buffer for Ancient Woodland

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Tritax Symmetry Ltd and L&Q Estates Ltd

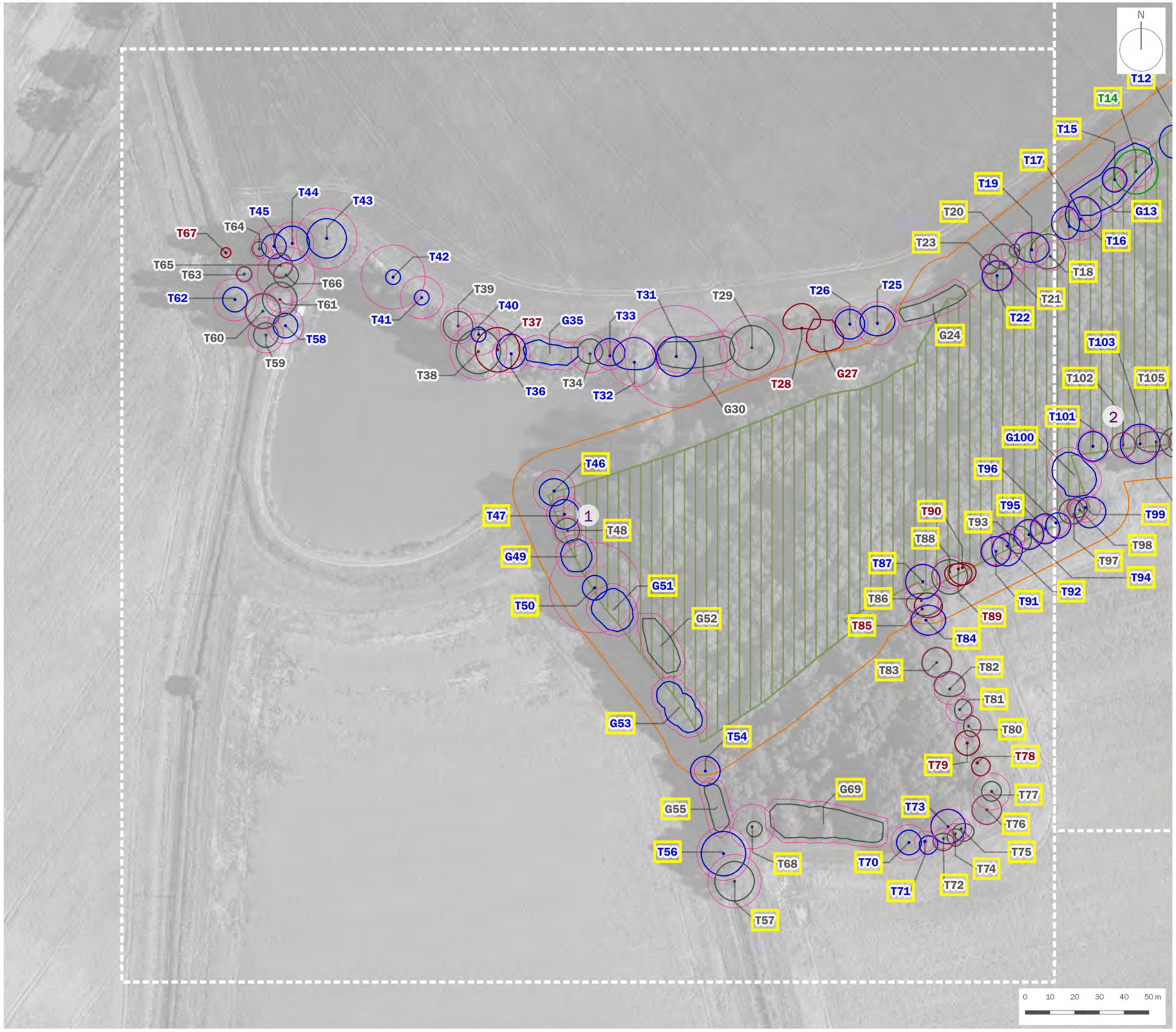
project title

Cawston Spinney/Cawston Fox Covert LWS Woodland Management Plan

drawing title

Plan EDP 1: Tree Constraints Plan Overview

date	26 MAY 2020	**drawn by**	GY
drawing number	edp4823_d001b	**checked**	RC
scale	1:2,500 @ A3	**QA**	LB



Legend

- Site Boundary
- T1 Tree/Group Number
- Tree/Group Canopy
- Tree Stem
- Root Protection Area
- Category A: Trees of high quality and value
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Plan EDP 1: Tree Constraints Plan (Sheet 1 of 2)

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drawing number	edp4823_d001b	**checked**	RC
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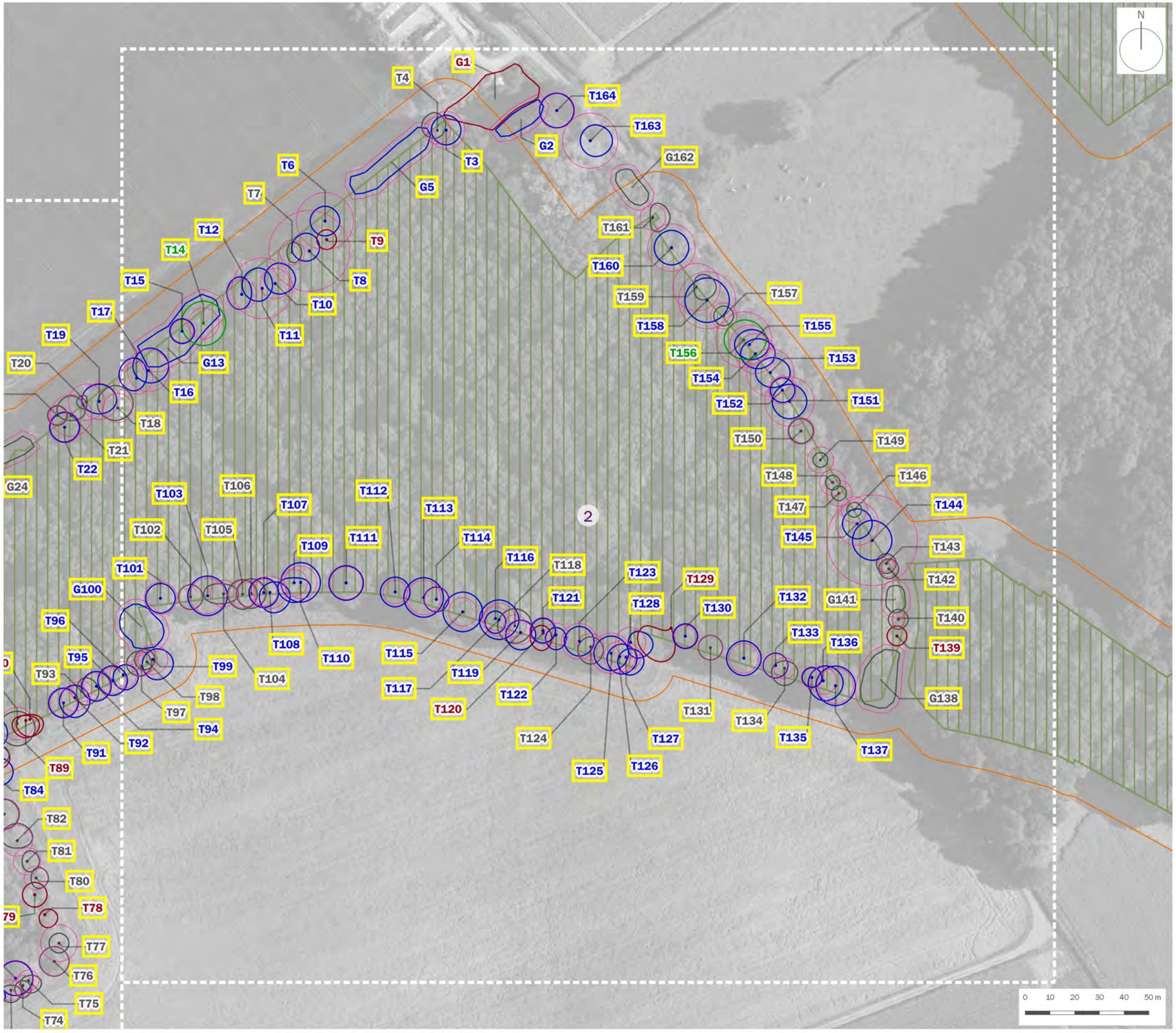
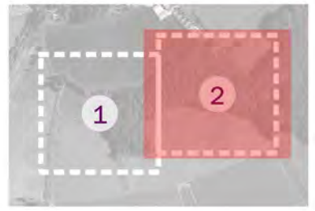


Legend

- Site Boundary
- Tree/Group Number (T1)
- Tree/Group Canopy
- Tree Stem
- Root Protection Area
- Category A: Trees of high quality and value
- Category B: Trees of moderate quality and value
- Category C: Trees of low quality and value
- Category U: Trees of poor quality and value
- TPO Trees
- Ancient Woodland
- Natural England Buffer for Ancient Woodland



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drawing title

Plan EDP 1: Tree Constraints Plan (Sheet 2 of 2)

date	26 MAY 2020	**drawn by**	GY
drawing number	edp4823_d001b	**checked**	RC
scale	1:1,500 @ A3	**QA**	LB

Annex EDP 2
Topographical Survey

Coordinate Table				
Station	Description	Easting	Northing	Level
S1	ROAD NAIL	446810.962	273011.312	112.363
S2	ROAD NAIL	446887.209	273056.642	113.008
S3	ROAD NAIL	446750.035	272948.348	111.308
S4	ROAD NAIL	446646.312	272922.194	108.548
S5	ROAD NAIL	446780.794	272907.079	112.014
S6	ROAD NAIL	446568.699	272916.578	104.540
S7	ROAD NAIL	446492.241	272890.393	100.041
S8	ROAD NAIL	446395.829	272897.162	100.898
S9	ROAD NAIL	446828.444	272972.013	112.400
S10	ROAD NAIL	446861.157	272936.411	112.623
S11	ROAD NAIL	446833.025	272932.734	112.319
S12	ROAD NAIL	446887.048	272906.826	112.218
S13	ROAD NAIL	446824.257	272918.831	112.359
S14	ROAD NAIL	446819.666	272955.196	111.980
S15	ROAD NAIL	446853.698	272879.313	112.204
S16	ROAD NAIL	446818.773	272968.930	112.109
S17	ROAD NAIL	446799.424	272968.865	112.517
S21	PEG	446765.251	272930.296	111.627
S22	PEG	446798.845	272960.137	112.204
S23	ROAD NAIL	446943.845	272846.923	109.622
S24	PEG	446983.152	272810.093	107.818
S26	PEG	446942.406	272788.710	107.923
S27	PEG	446770.835	272656.782	105.173
S28	PEG	446691.015	272639.855	105.025
S29	PEG	446617.206	272639.810	104.469
S30	PEG	447023.140	272774.771	105.432
S31	PEG	446997.839	272736.724	104.136
S32	PEG	446974.179	272722.216	104.025
S33	PEG	446933.389	272699.801	103.752
S34	PEG	446911.753	272673.918	103.502
S35	PEG	446899.557	272674.546	103.351
S36	PEG	446861.538	272669.996	103.020
S37	PEG	446842.735	272680.854	104.506
S38	PEG	446810.589	272651.006	102.506
S39	PEG	446791.001	272666.676	105.785
S50	PEG	447082.367	272694.746	107.631
S51	PEG	447139.197	272606.463	108.243
S52	PEG	447127.605	272469.853	111.699
S53	PEG	447207.457	272314.117	115.476
S54	PEG	447072.875	272162.639	116.299
S55	PEG	446987.760	271950.223	115.165
S56	PEG	446813.109	272077.140	114.117
S57	PEG	446556.323	271905.581	113.276
S58	PEG	446307.107	271907.254	112.416
S59	PEG	446103.332	271923.410	113.187
S60	PEG	446051.386	272146.521	110.638
S61	PEG	446203.026	272285.703	110.059
S62	PEG	446311.439	272443.206	107.662
S63	PEG	446631.463	272737.662	109.247
S64	PEG	446747.021	272792.926	111.630
ST01	PEG	446673.306	272861.945	111.264
ST02	PEG	446521.547	272795.221	104.763
ST03	PEG	446464.080	272700.862	100.318
ST04	PEG	446438.378	272798.317	99.865
ST05	PEG	446536.536	272682.122	104.089
ST06	PEG	446503.474	272656.178	100.585
ST07	PEG	446510.578	272549.253	101.779
ST08	PEG	446652.968	272593.133	101.660
ST09	PEG	446495.088	272630.513	100.922

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KERB CHANNEL
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CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
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FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR 25.50
SPOT LEVEL + 127.13
BORE HOLE BH
TRIAL HOLE TH
SECTION POSITION 1

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
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FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
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STOP VALVE	SV
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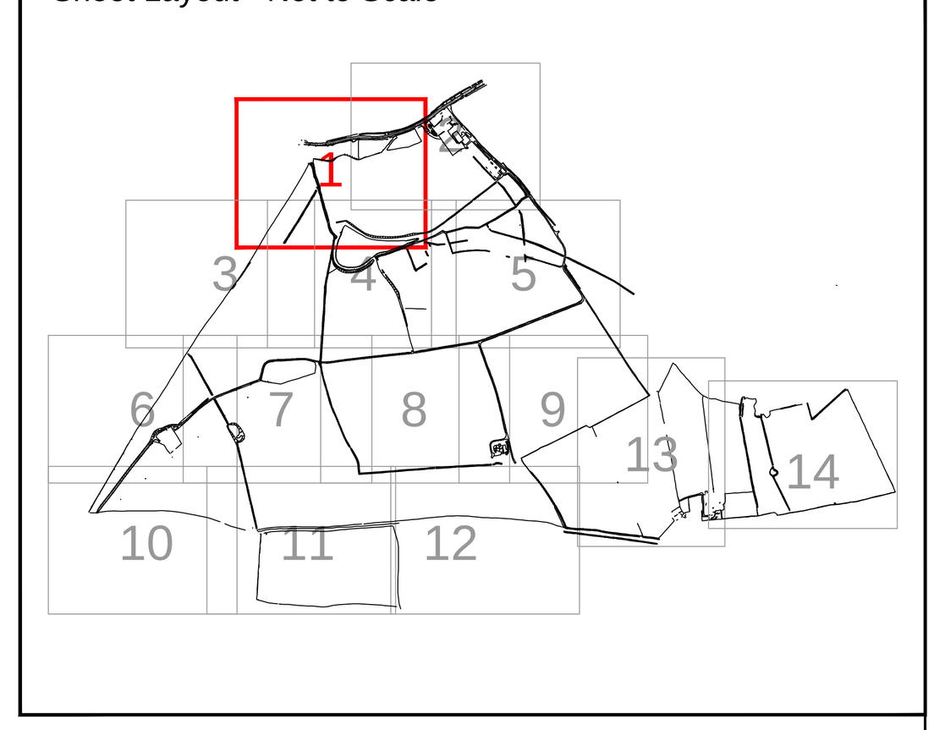

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Coventry Road
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Warwickshire

Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	1	February 2015
Project Number: 20553	Rev: 4	Surveyed By: EB/SJF/SL	Approved By: RPE

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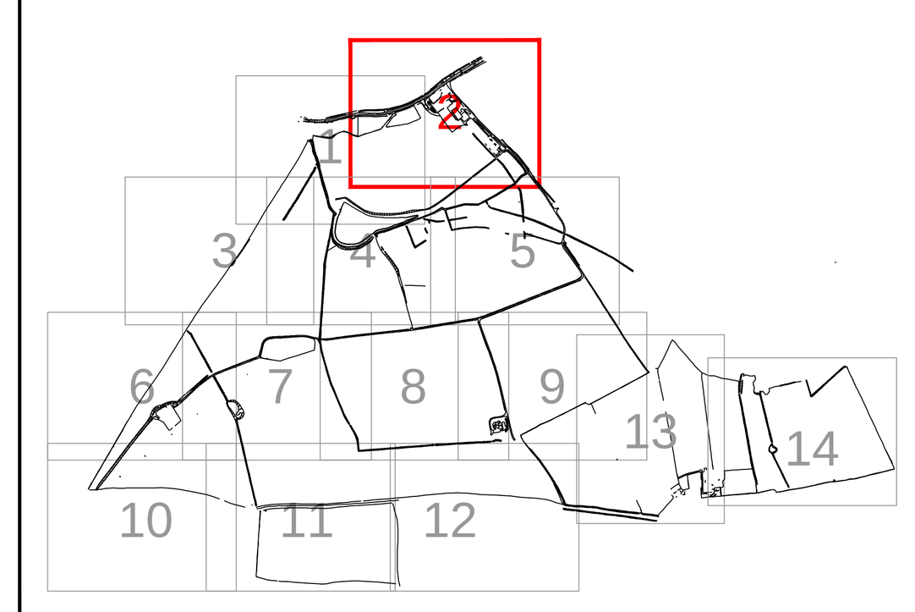

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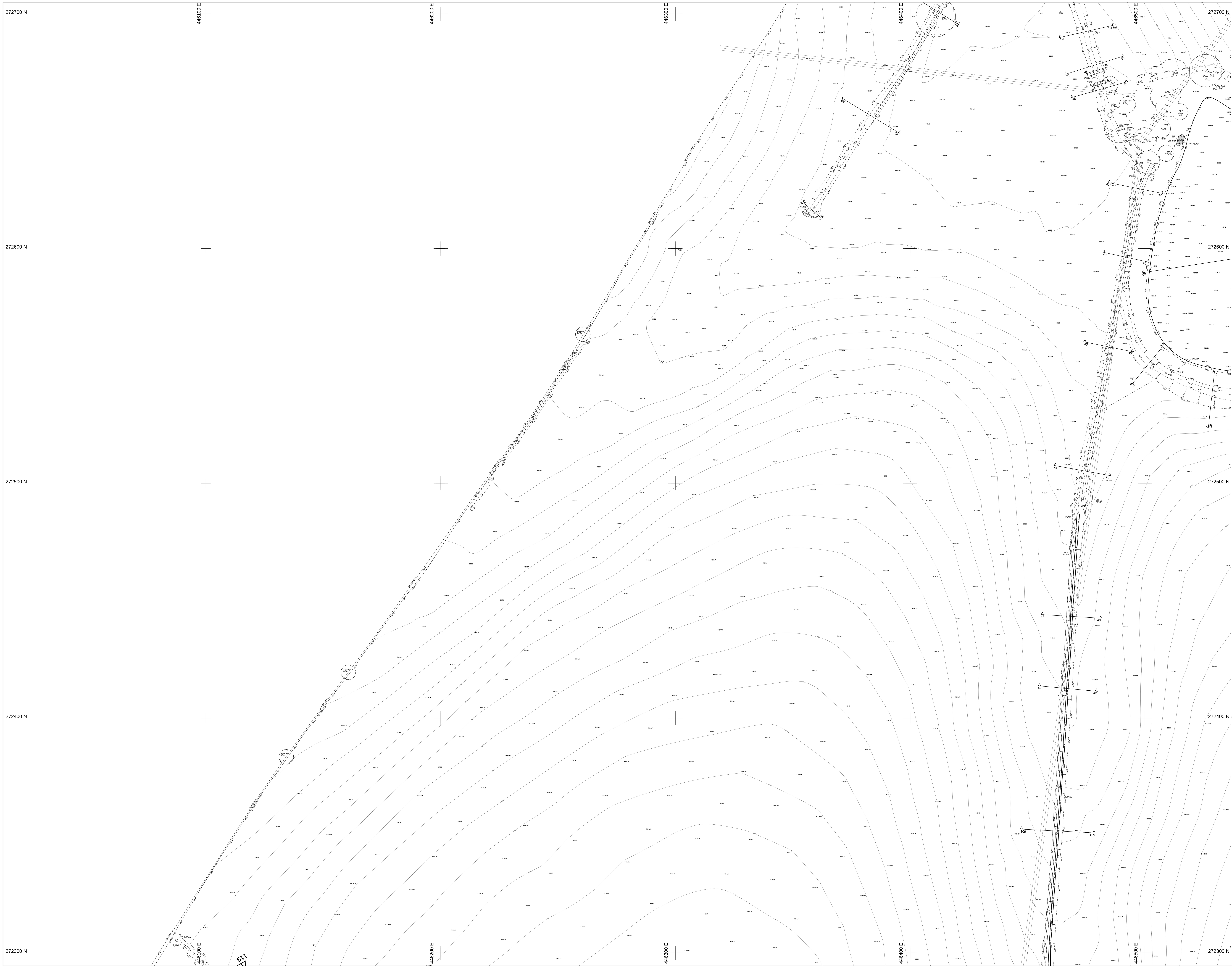

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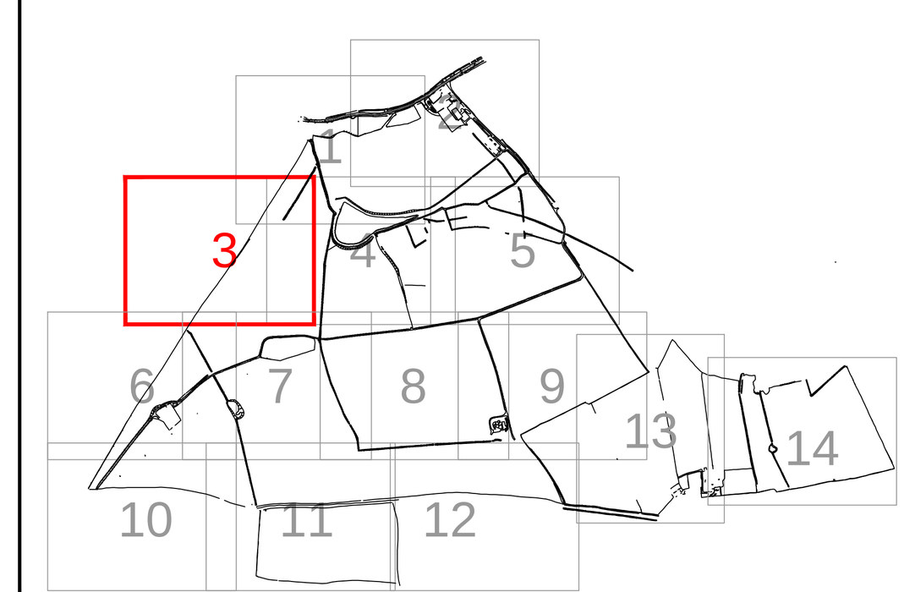

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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	3	February 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF/SL	RPE

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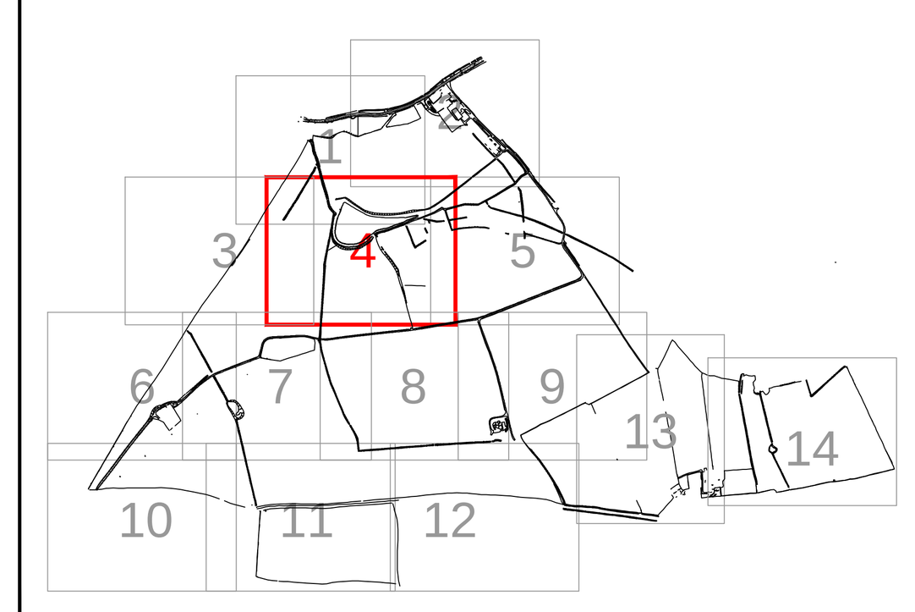

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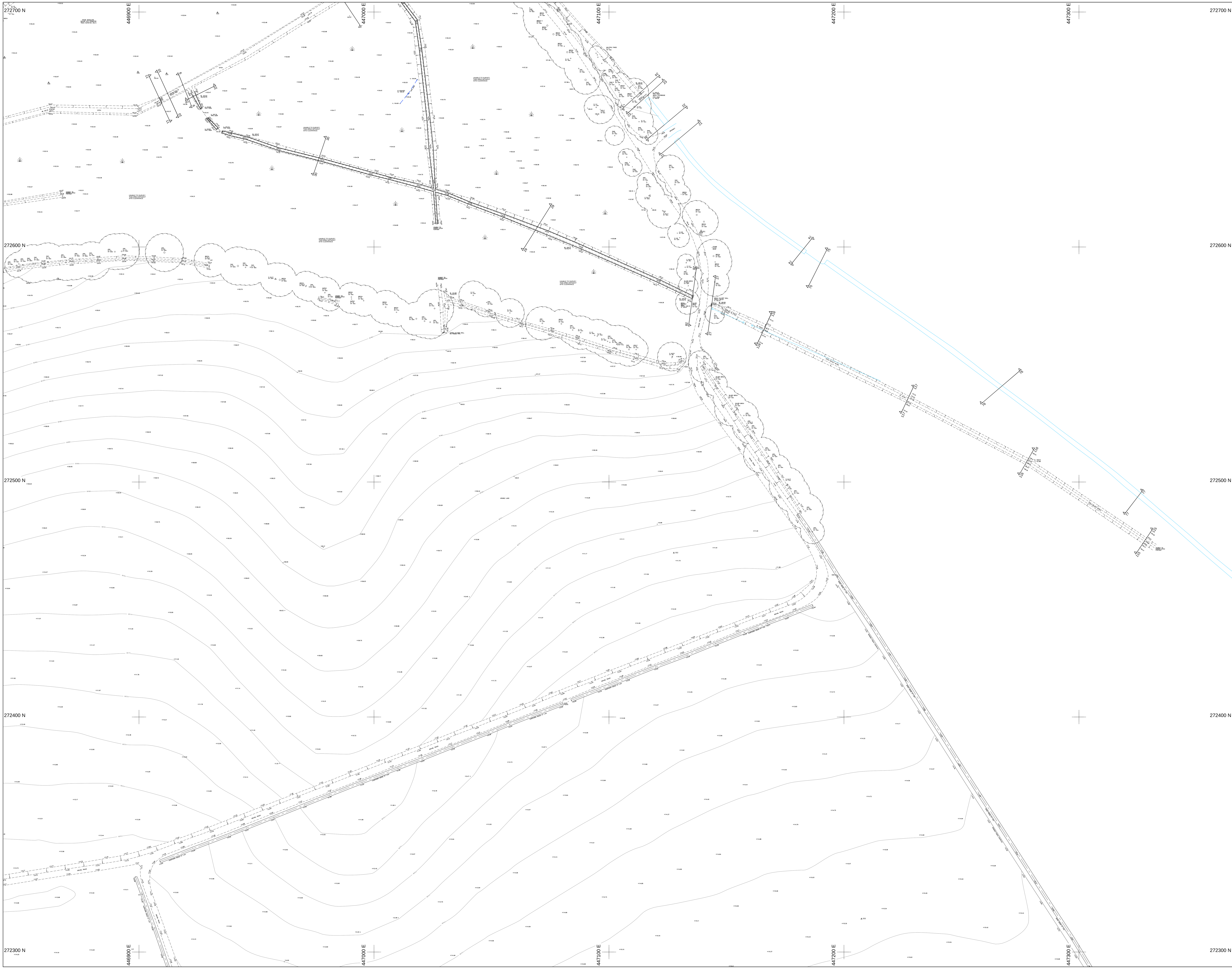

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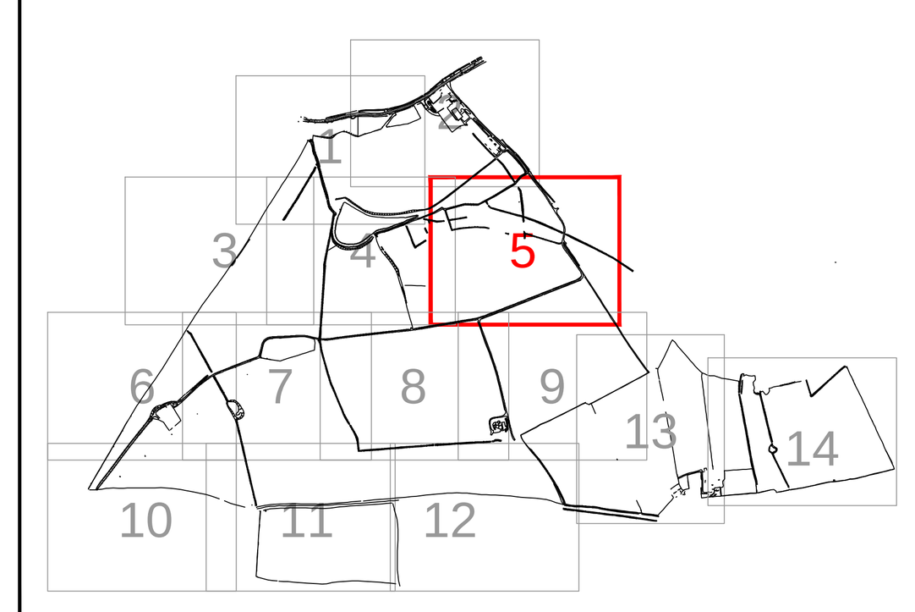

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1:500	A0	5	February 2015

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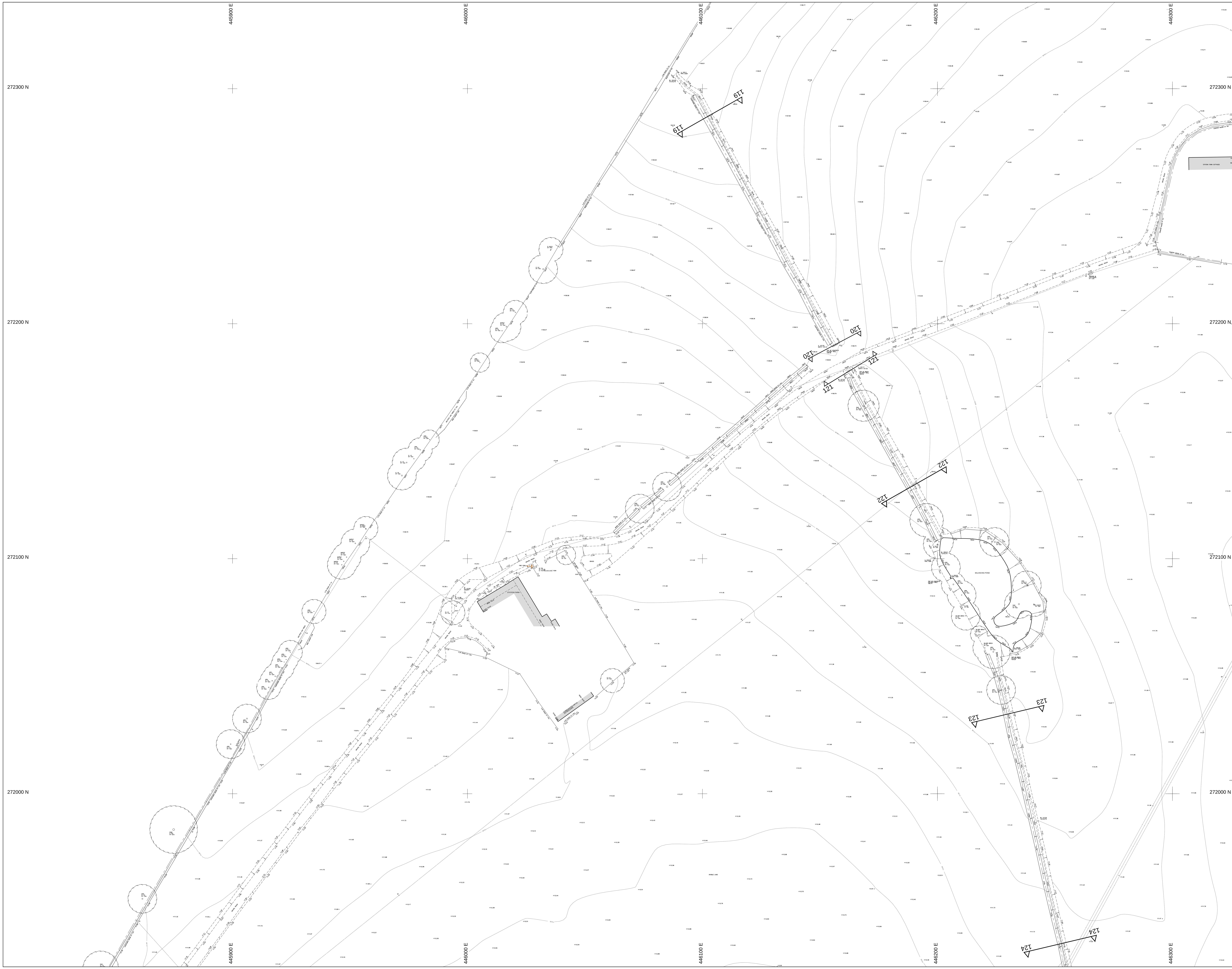
20553	4	EB/SJF/SL	RPE



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Coordinate Table

Station	Description	Easting	Northing	Level
	For Station information please see Sheet 1.			

TOPOGRAPHICAL KEY

SURVEY STATION
BANKING (TOP / BOTTOM)
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES — SPREAD & GIRTH SHOWN TO SCALE
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR — 25.50
SPOT LEVEL — + 127.13
BORE HOLE — BH
TRIAL HOLE — TH
SECTION POSITION — 1

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TELECOM POLE	TP
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	C/I
CHAIN LINK FENCE	C/L
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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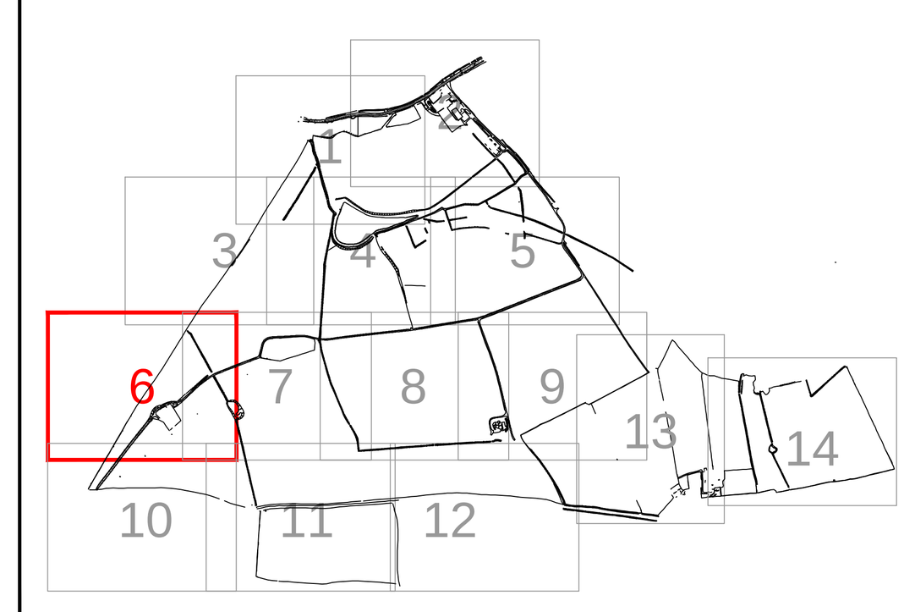

Revision	Description	Surv. by	Appr. by	Date
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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	6	February 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF/SL	RPE

446200 E
446300 E
446400 E
446500 E
446600 E
272300 N
272200 N
272100 N
272000 N

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Coordinate Table

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	For Station information please see Sheet 1.			

TOPOGRAPHICAL KEY

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BANKING
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR
SPOT LEVEL
BORE HOLE
TRIAL HOLE
SECTION POSITION

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BENCH	BE
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH POST	EH
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GUARD POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
SURFACE WATER PIPE	SWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
SUMP	SU
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TRANSFORMER	TR
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CORRUGATED IRON FENCE	C/FL
CORRUGATED IRON FENCE	C/L
CHAIN LINK FENCE	CHL
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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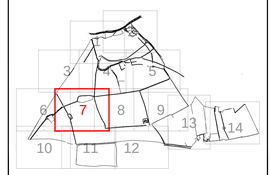

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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	7	February 2015
Project Number:	Rev.	Surveyed By:	Approved By:
20553	4	EB/SJF/SL	RPE

446600 E
446700 E
446800 E
446900 E
447000 E
272300 N
272200 N
272100 N
272000 N

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TOPOGRAPHICAL KEY

SURVEY STATION, BANKING (TOP / BOTTOM), HEDGE SPREADS, WOODLAND CANOPY, MARSH / WATERLOGGED, TREES (SPREAD & GIRTH SHOWN TO SCALE), GATE, KERB CHANNEL, ROAD UNKERBED, FOOTPATH, CHANGE IN SURFACE, FENCE, WALL, OVERHEAD ELECTRIC, OVERHEAD TELECOM, FOUL SEWER, SURFACE SEWER, BUILDING, OPEN SIDED BUILDING, GLASSHOUSE, CONTOUR (25.50), SPOT LEVEL (+ 127.13), BORE HOLE (BH), TRIAL HOLE (TH), SECTION POSITION (A / A')

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BENCH	BE
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CATTLE GRID	CG
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH	EH
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GUARD POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
SIGN POST	SP
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
UNABLE TO ENTER	UTE
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARDED FENCE	CB
CONCRETE POST FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

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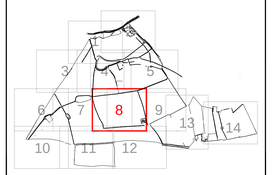

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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
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Project Number:	**Rev:**	**Surveyed By:**	**Approved By:**
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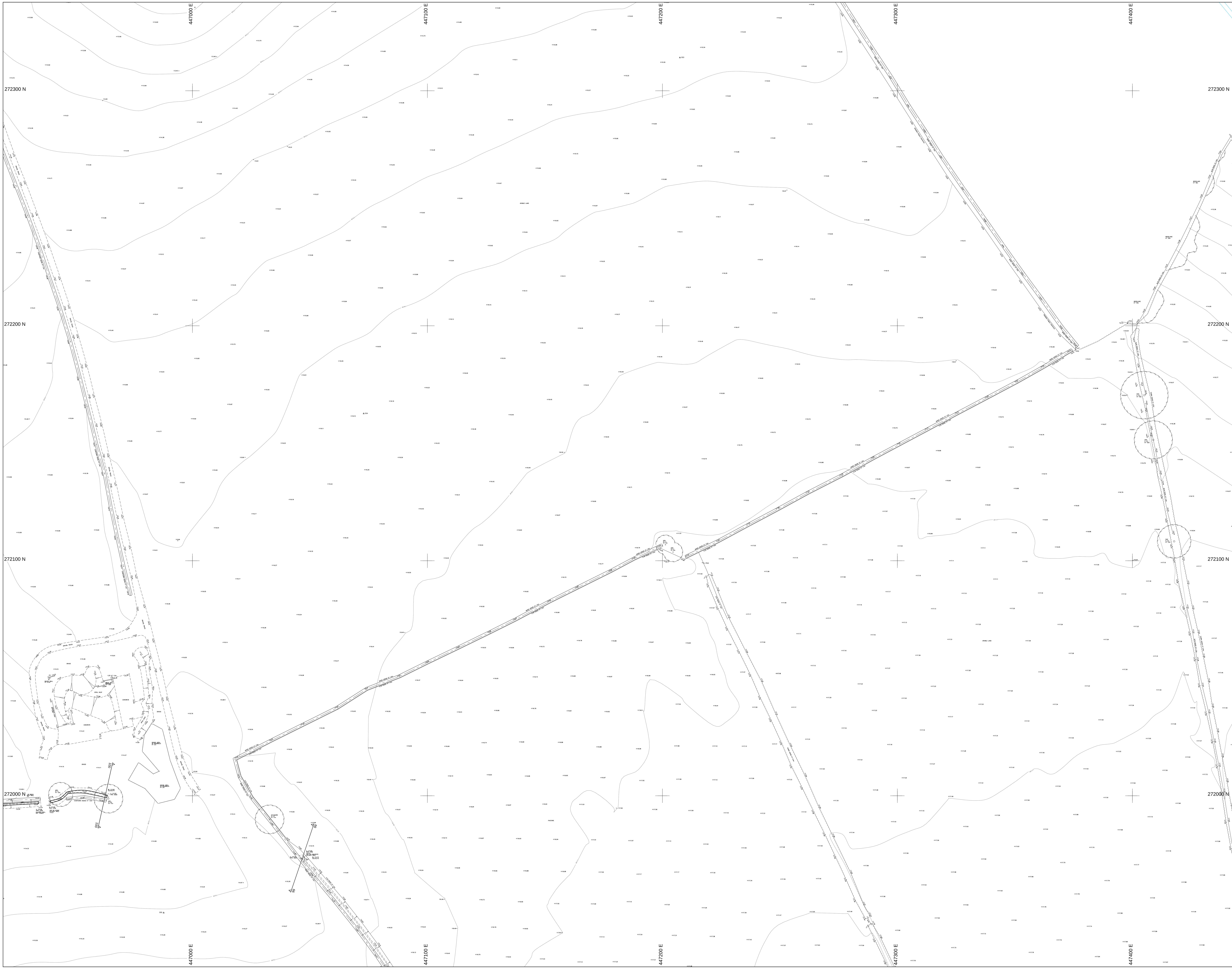

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BANKING — TOP / BOTTOM
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES — SPREAD & GIRTH SHOWN TO SCALE
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR — 25.50
SPOT LEVEL — + 127.13
BORE HOLE — BH
TRIAL HOLE — TH
SECTION POSITION — 1

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TELECOM POLE	TP
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	C/I
CHAIN LINK FENCE	C/L
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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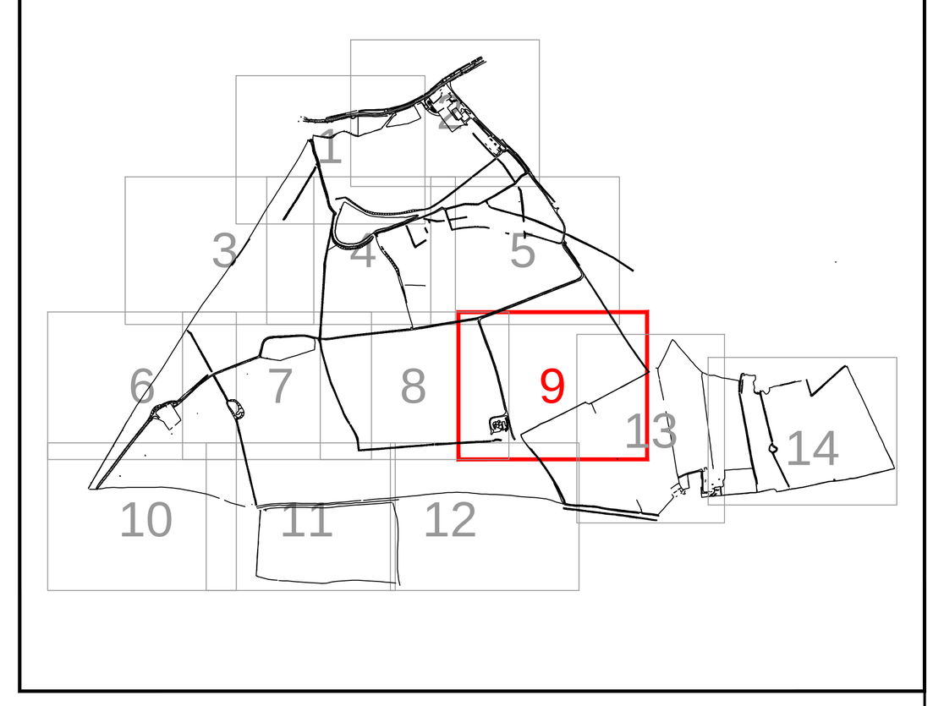

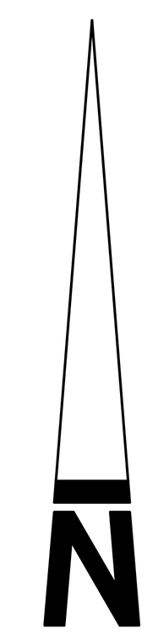

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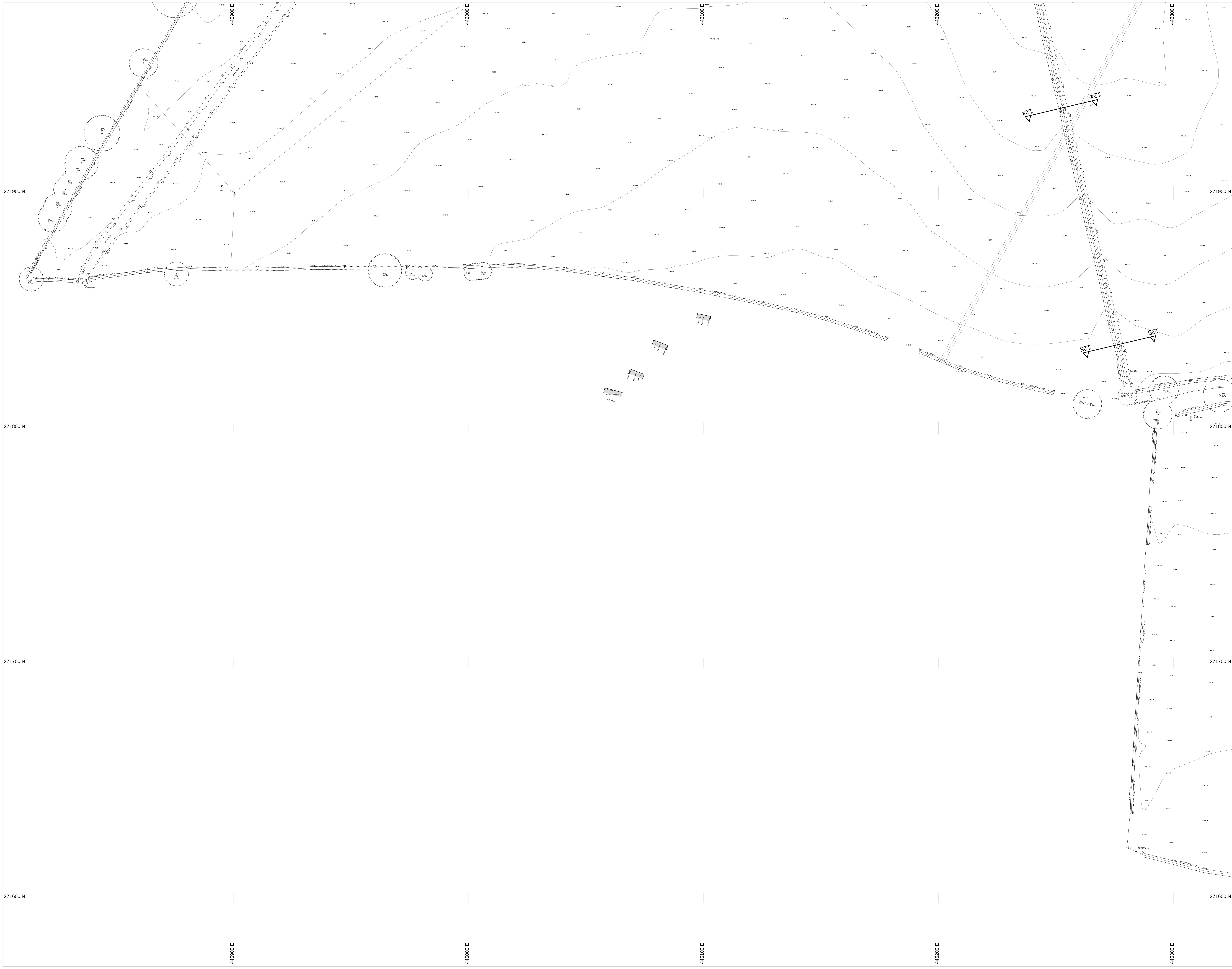

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BANKING (TOP / BOTTOM)
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES (SPREAD & GIRTH SHOWN TO SCALE)
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CHANGE IN SURFACE
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GLASSHOUSE
CONTOUR 25.50
SPOT LEVEL + 127.13
BORE HOLE BH
TRIAL HOLE TH
SECTION POSITION 1

GENERAL ABBREVIATIONS

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AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
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CONTROL BOX	CB
COVER LEVEL	CL
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ELECTRICITY POLE	EP
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FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TELECOM POLE	TP
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

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IRON RAILINGS	I/R
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POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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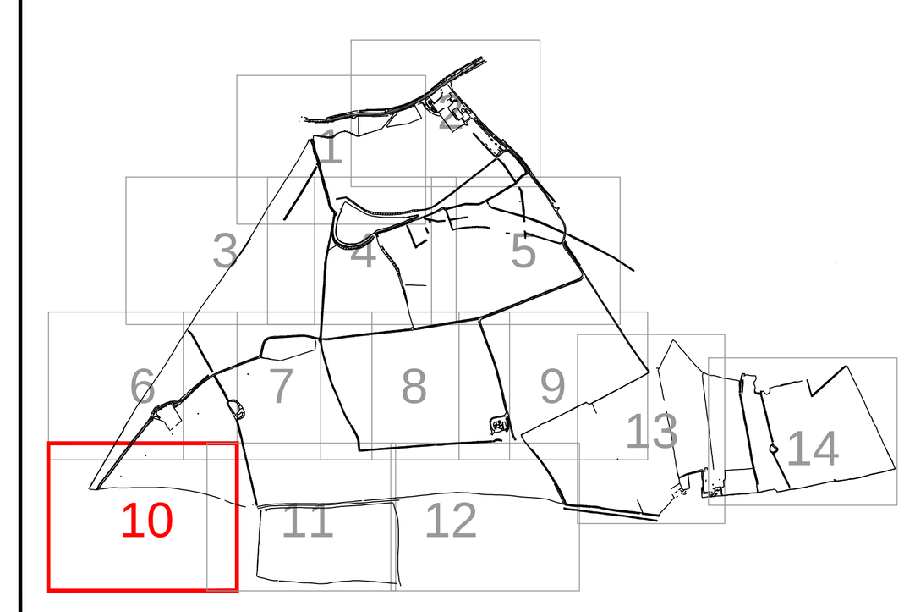

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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	10	February 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF/SL	RPE

446300 E
446400 E
446500 E
446600 E
446700 E
271900 N
271800 N
271700 N
271600 N
124
125
102
103

Notes :

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	For Station information please see Sheet 1.			

TOPOGRAPHICAL KEY

SURVEY STATION 5

BANKING (TOP / BOTTOM)

HEDGE SPREADS

WOODLAND CANOPY

MARSH / WATERLOGGED

TREES (SPREAD & GIRTH SHOWN TO SCALE)

GATE

KERB CHANNEL

ROAD UNKERBED

FOOTPATH

CHANGE IN SURFACE

FENCE

WALL

OVERHEAD ELECTRIC

OVERHEAD TELECOM

FOUL SEWER

SURFACE SEWER

BUILDING

OPEN SIDED BUILDING

GLASSHOUSE

CONTOUR 25.50

SPOT LEVEL + 127.13

BORE HOLE BH

TRIAL HOLE TH

SECTION POSITION A

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BENCH	BE
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CATCH BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH POST	EH
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GUARD POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
SURFACE WATER PIPE	SWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
SV SLUICE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TRIAL HOLE	TH
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CORRUGATED METAL FENCE	C/FL
CORRUGATED IRON FENCE	C/I
CHAIN LINK FENCE	C/L
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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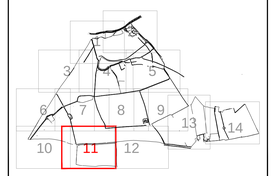

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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	11	February 2015
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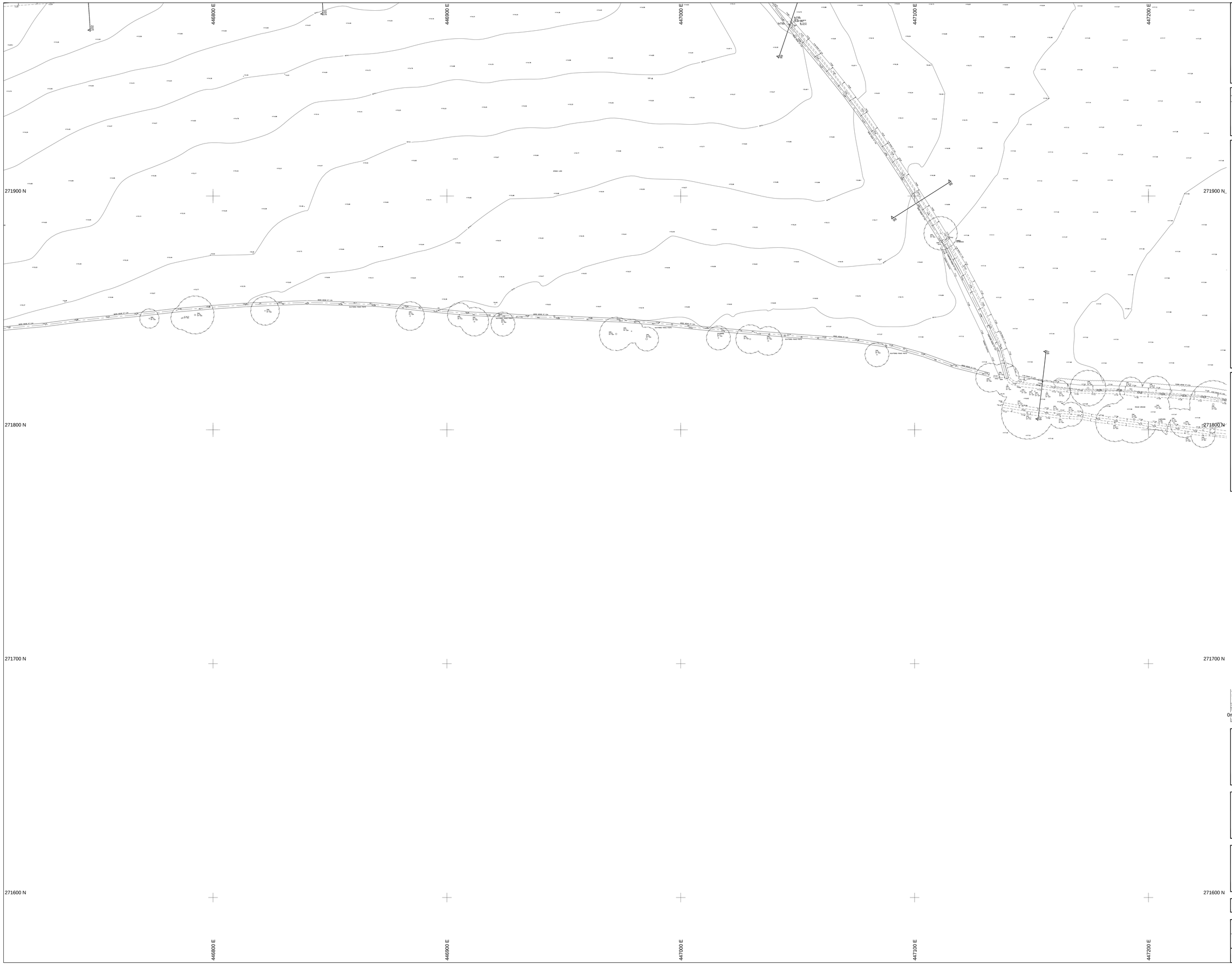
20553	4	EB/SJF/SL	RPE



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WOODLAND CANOPY

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TREES: SPREAD & GIRTH SHOWN TO SCALE

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OPEN SIDED BUILDING

GLASSHOUSE

CONTOUR 25.50

SPOT LEVEL + 127.13

BORE HOLE BH

TRIAL HOLE TH

SECTION POSITION A / A

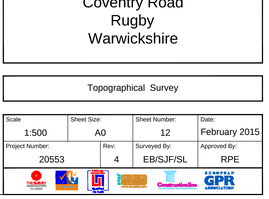
GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BENCH	BE
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CABLE TV BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GUIDE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
MANHOLE	MHFW
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
SURFACE WATER PIPE	SWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
SUMP	SU
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TREE PROTECTION	TP
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARDED FENCE	CB
CONCRETE RAIL FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

Sheet Layout - Not to Scale



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Topographical Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:500	A0	12	February 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF/SL	RPE

447200 E
447300 E
447400 E
447500 E
272300 N
272200 N
272100 N
272000 N
271900 N
271800 N

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GATE
KERB CHANNEL
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CONTOUR 25.50
SPOT LEVEL + 127.13
BORE HOLE BH
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SECTION POSITION 1

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AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
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ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
POST	PO
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TOP OF WALL	TOW
TELECOM POLE	TP
UNABLE TO LIFT	UTL
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

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IRON RAILINGS	IR
POST AND RAIL FENCE	P/R
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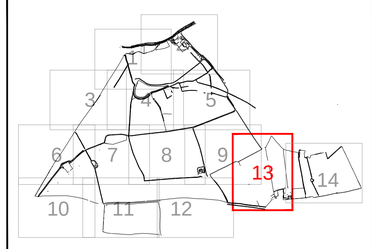

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Topographical Survey

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1:500	A0	13	February 2015
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STREET NAME PLATE	SNP
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
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TELEPHONE CALL BOX	TCB
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IRON RAILINGS	I/R
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POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

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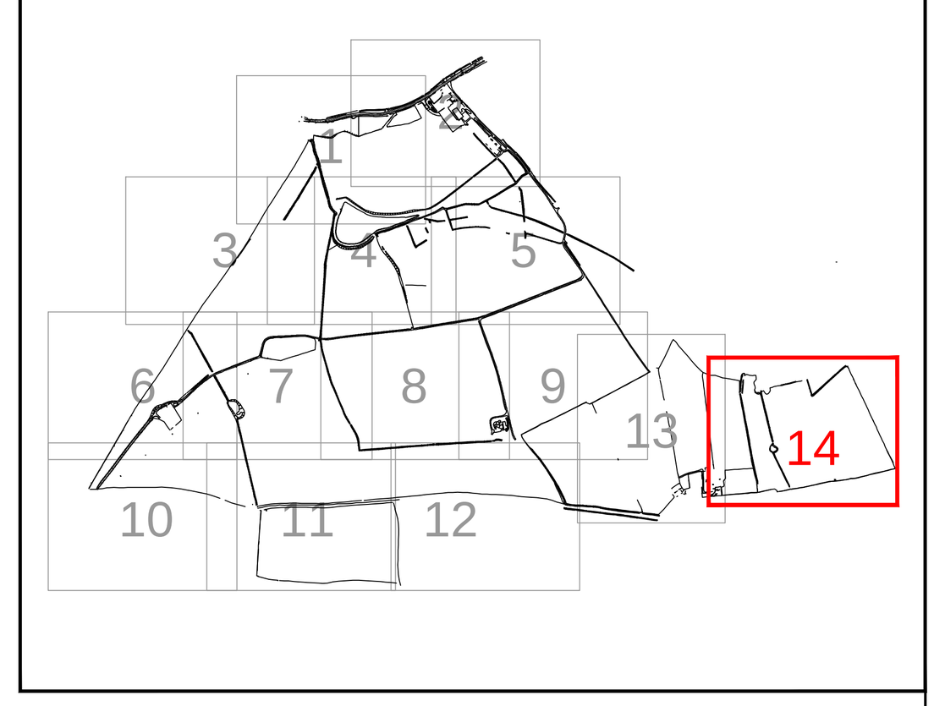

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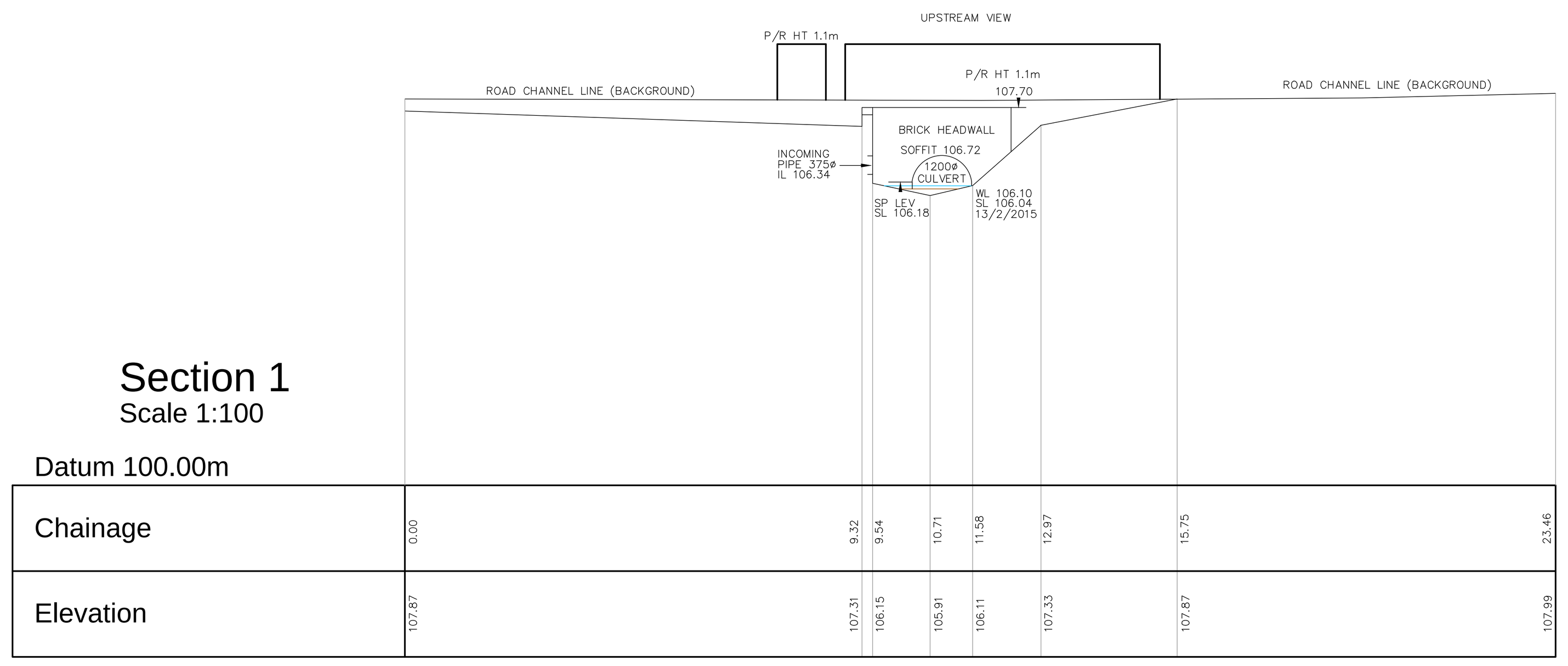

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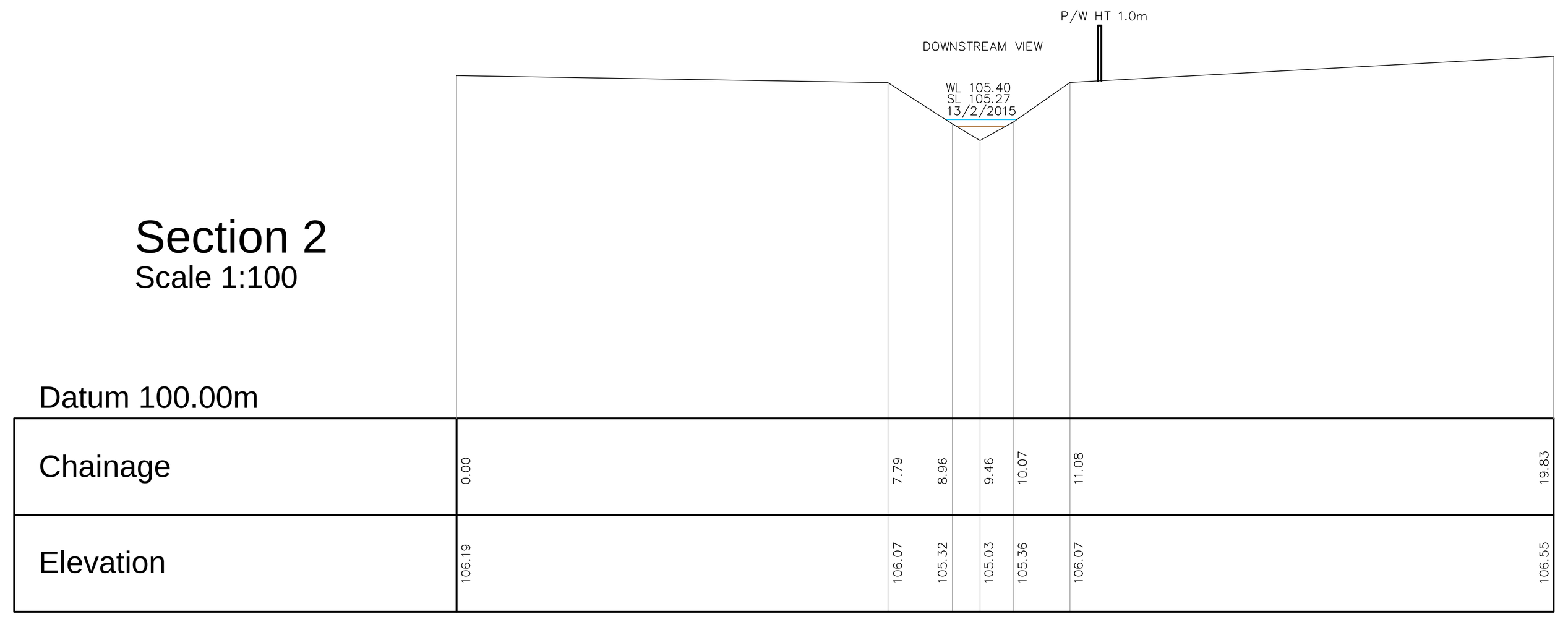

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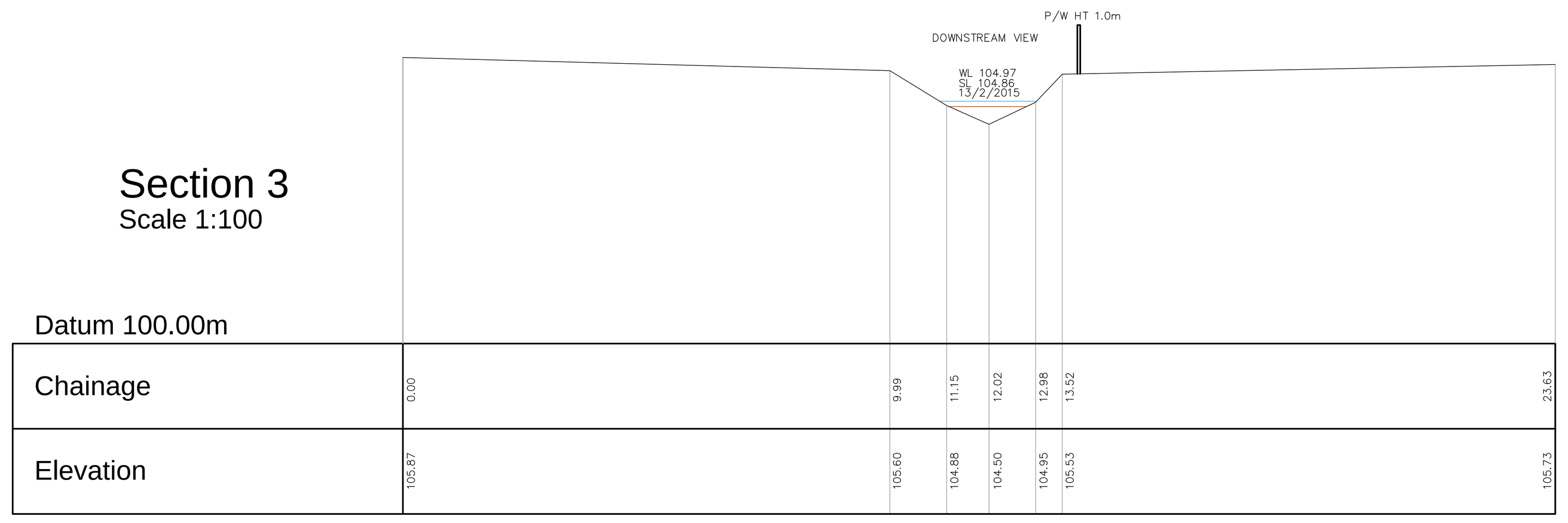

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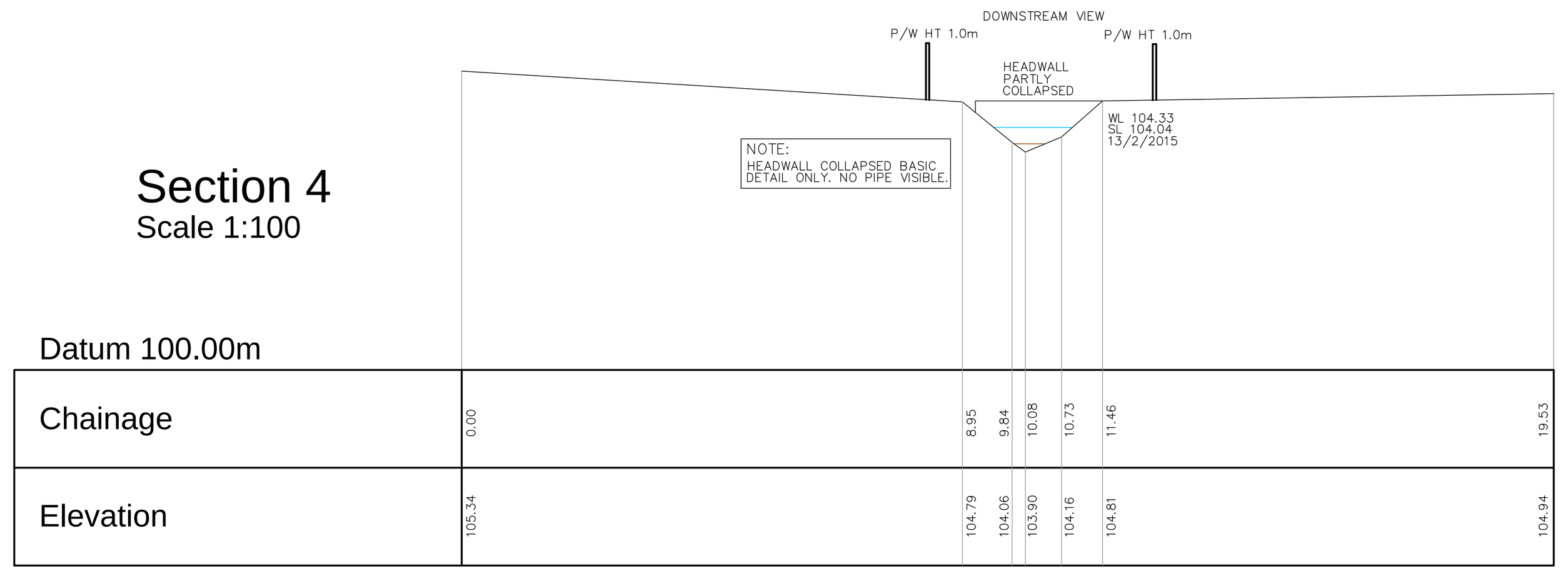

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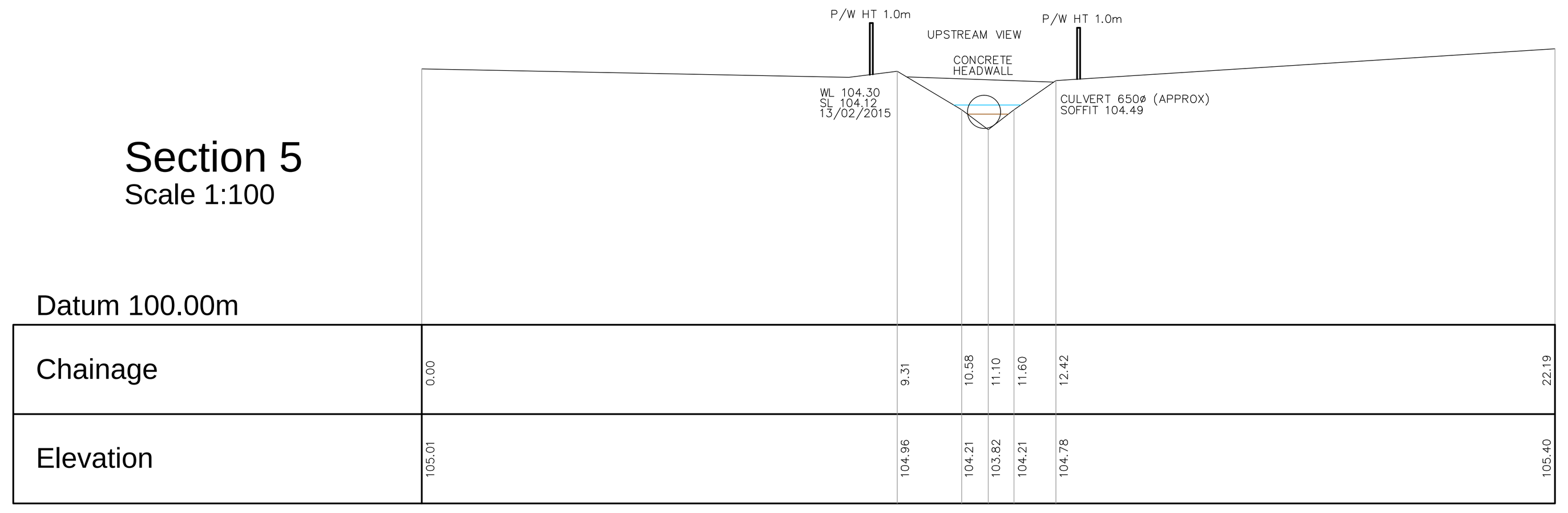

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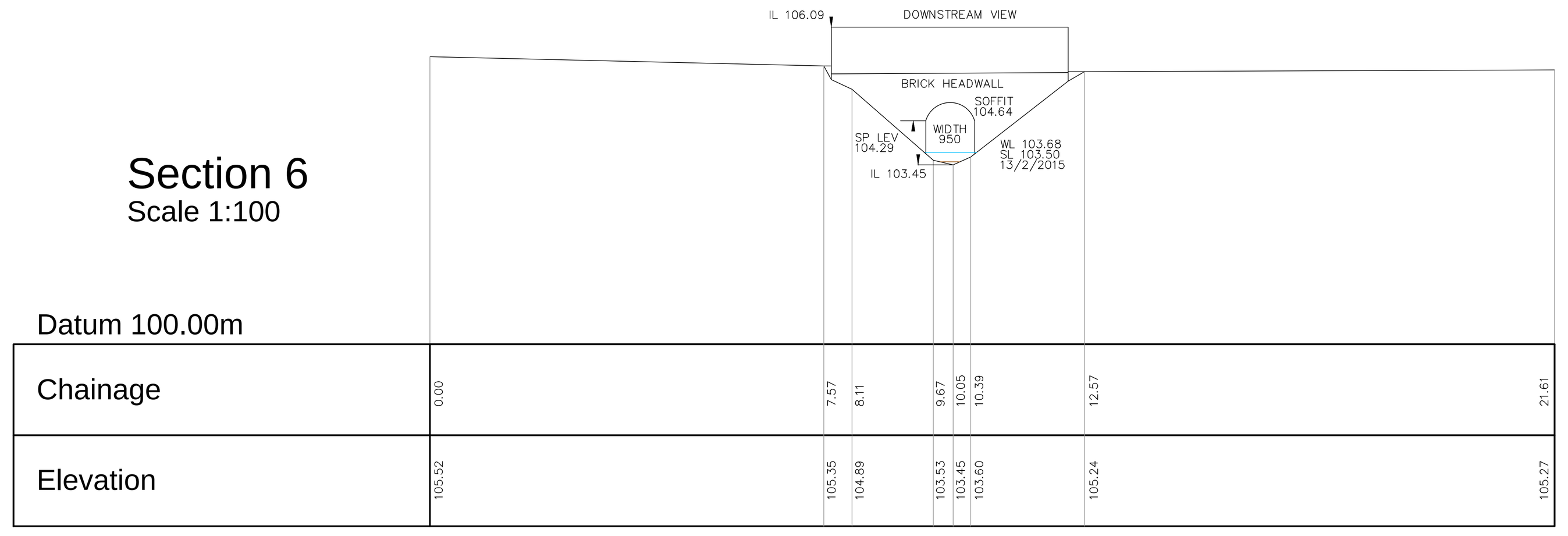

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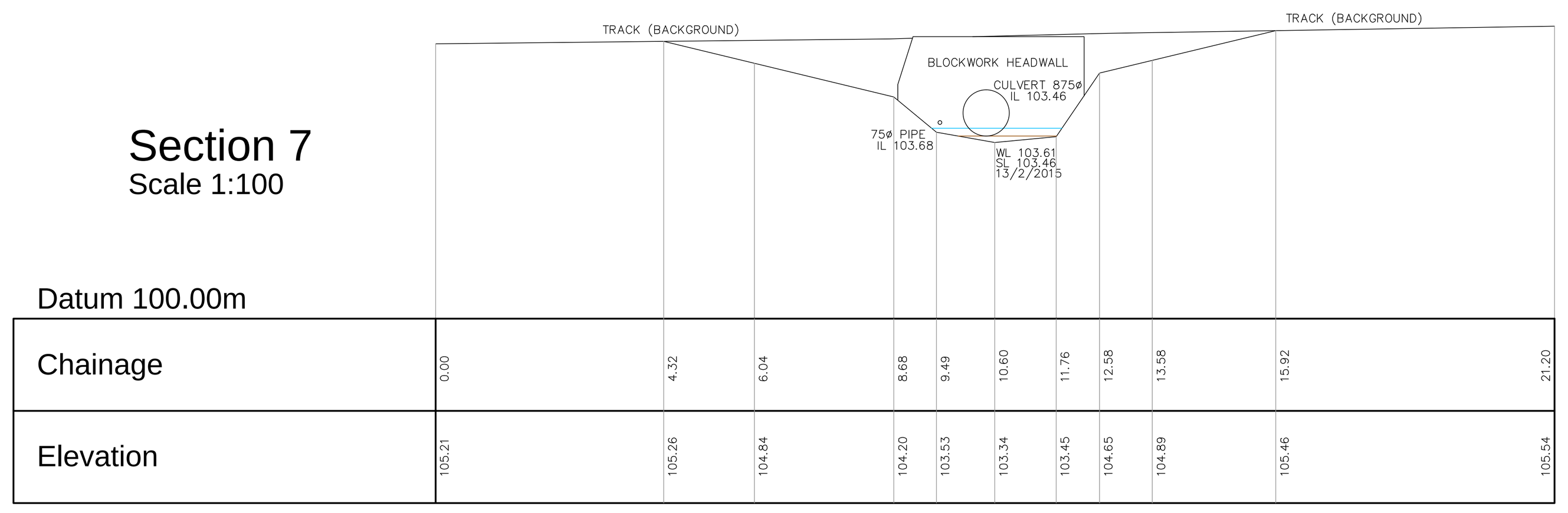

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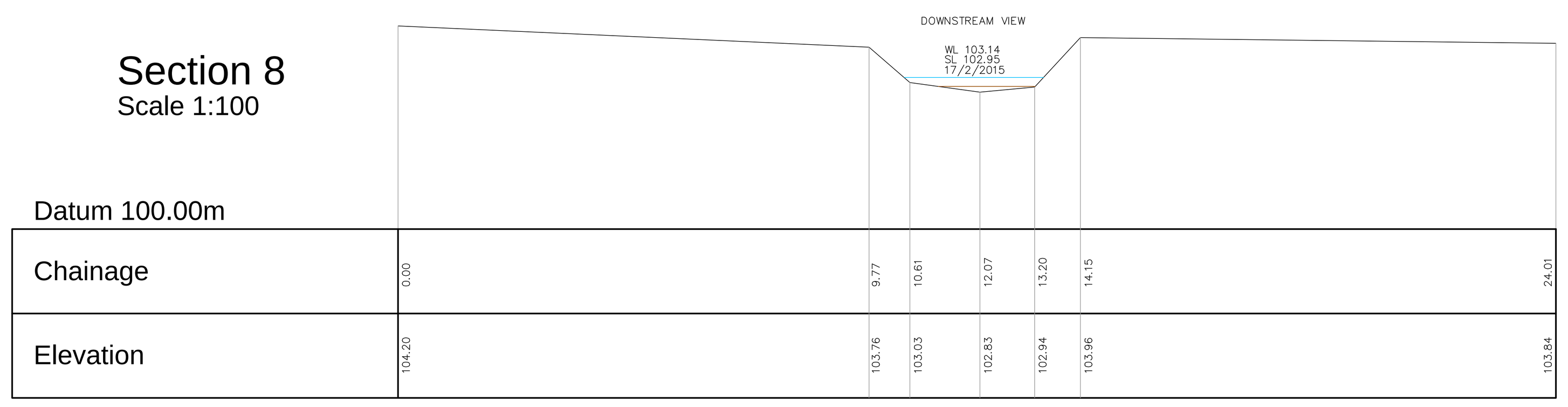

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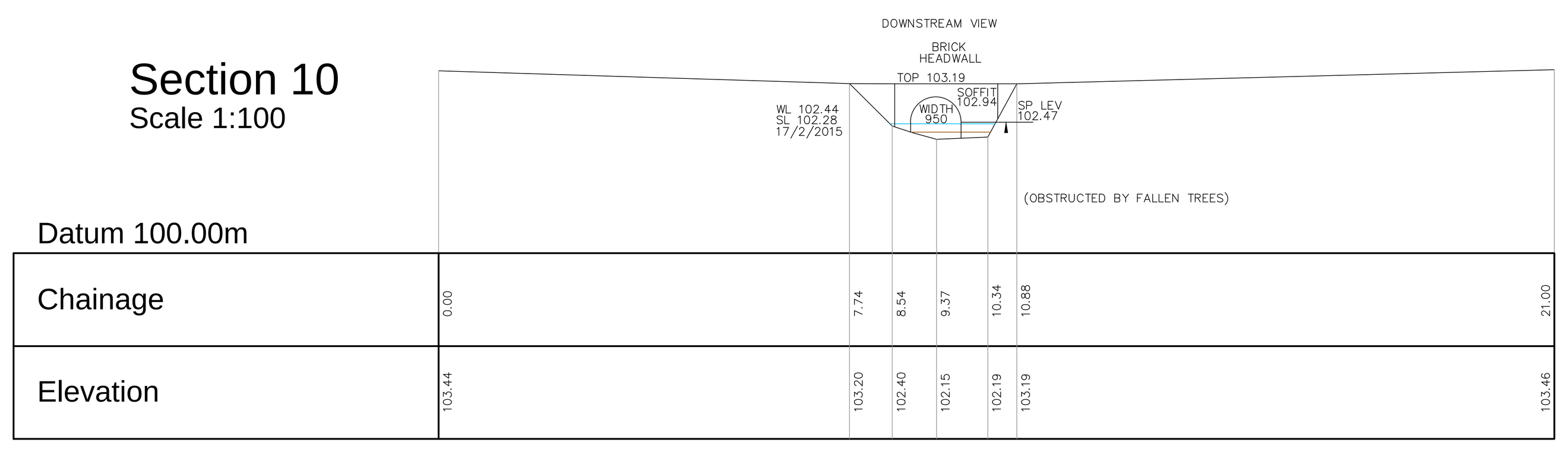

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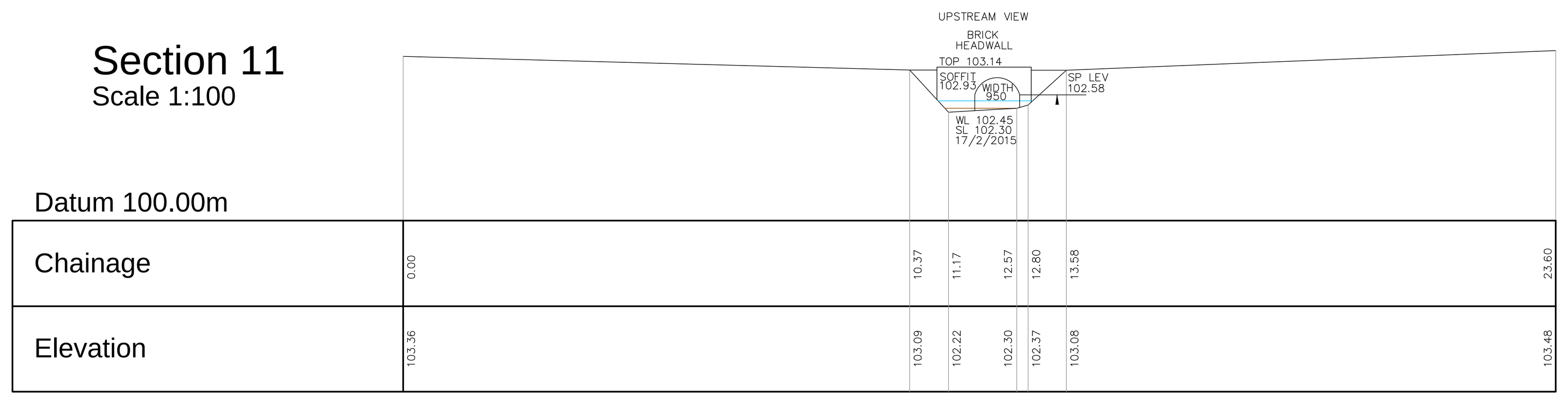

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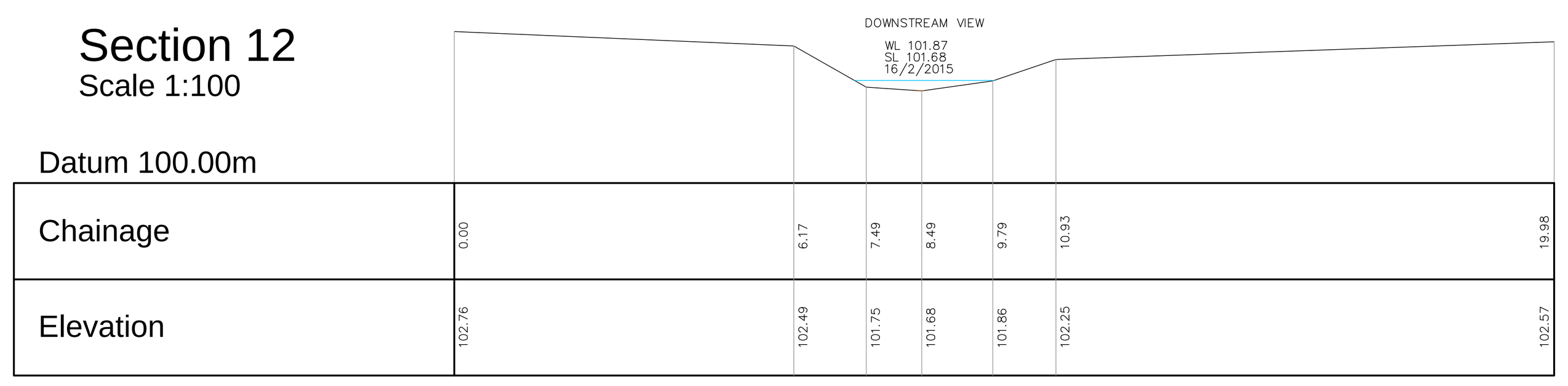
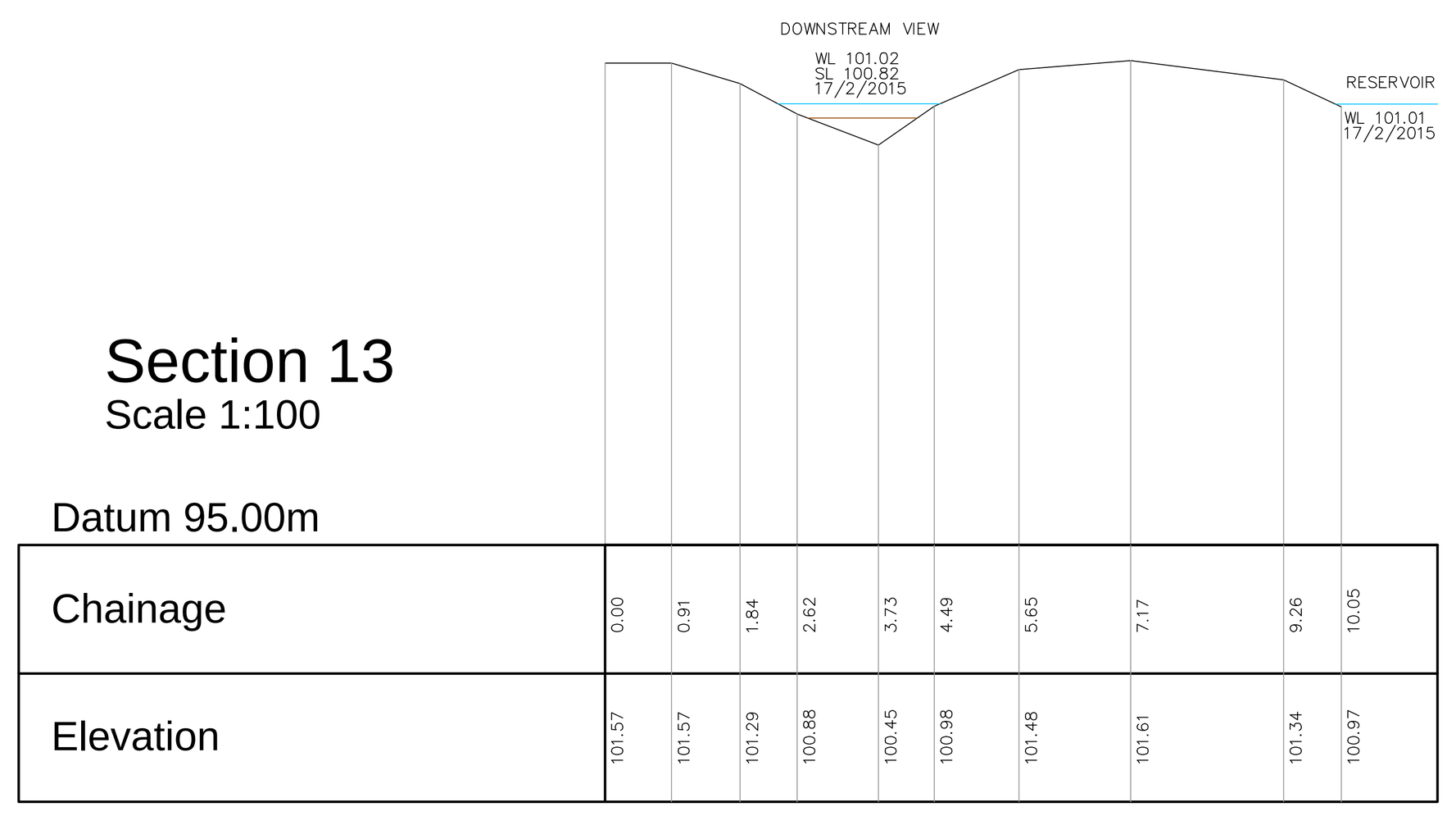
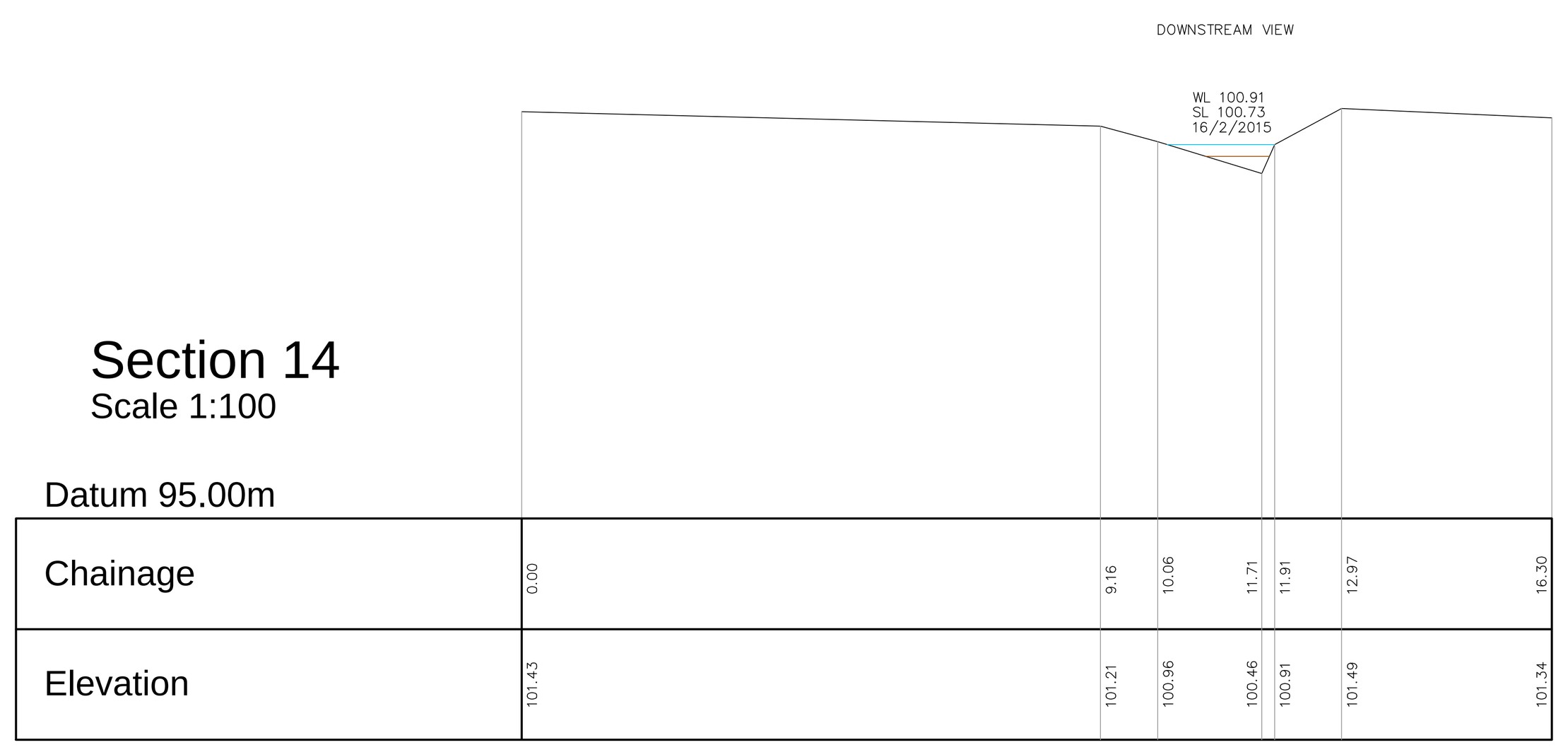
Scale 1:100
Datum 100.00m



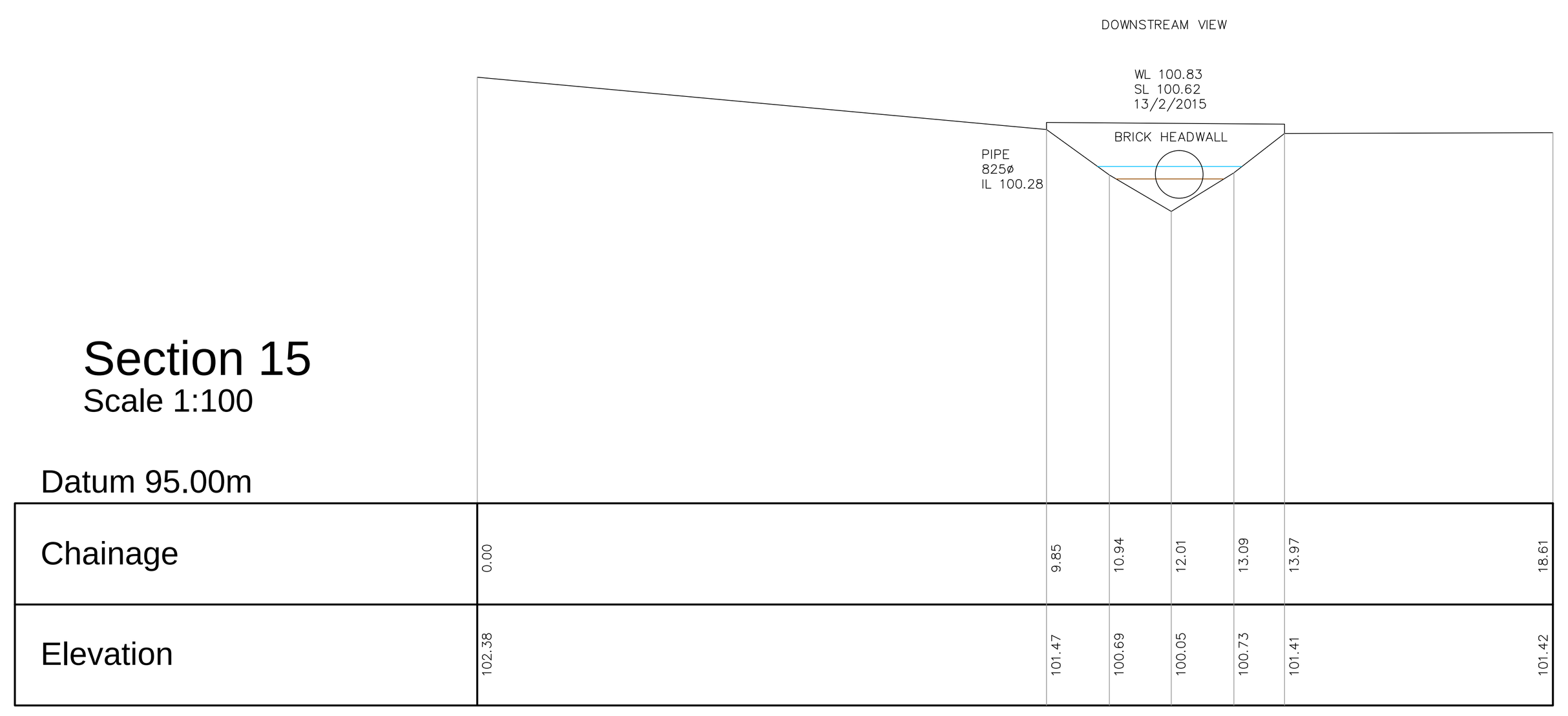
Section 13
Scale 1:100
Datum 95.00m



Section 14
Scale 1:100
Datum 95.00m



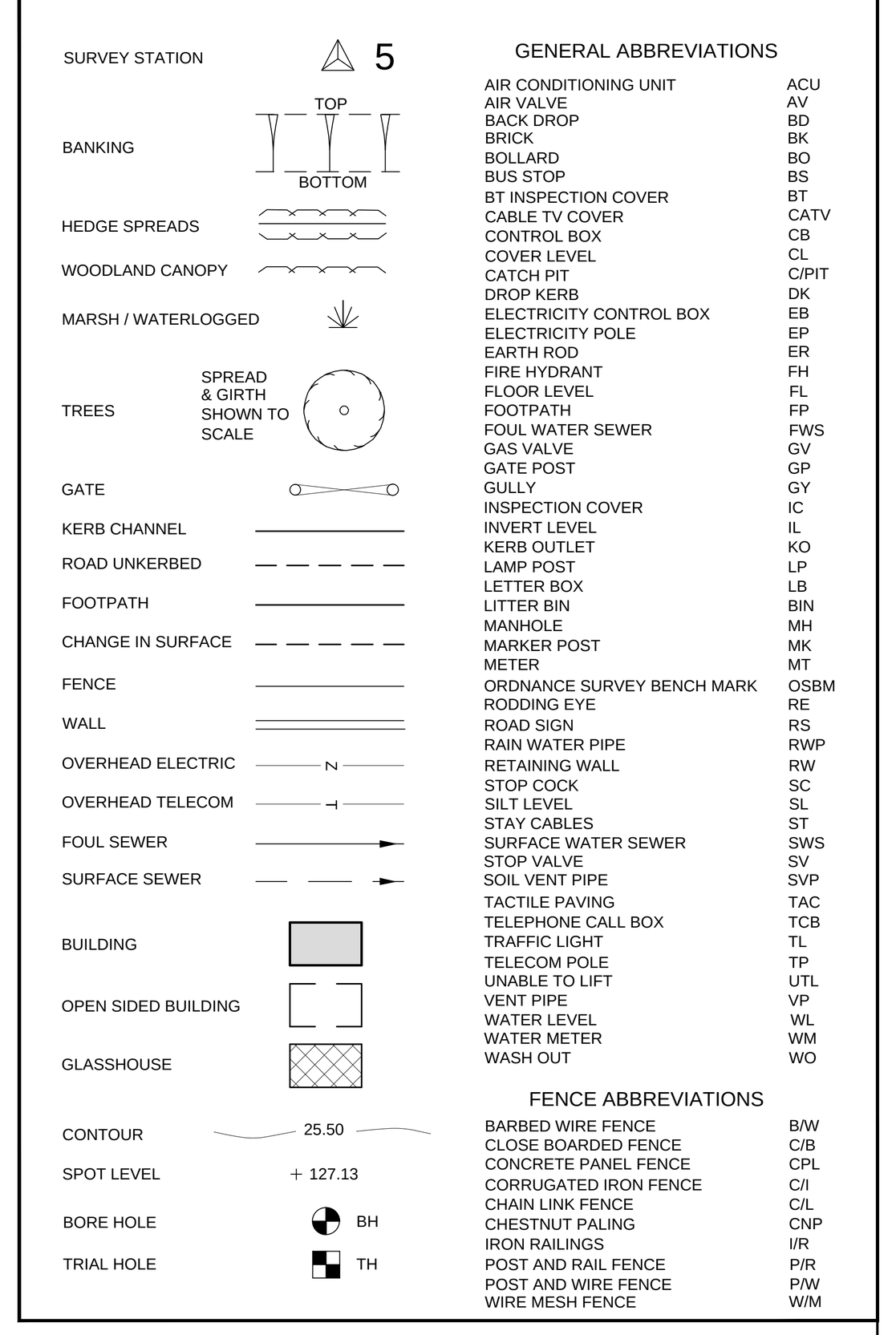
Section 15
Scale 1:100
Datum 95.00m



Notes :

1. GRID AND LEVELS BASED ON ORDNANCE DATUM, DERIVED FROM THE NATIONAL GPS NETWORK. LOCAL SCALE FACTOR USED: 0.99963.
2. DRAINAGE INFORMATION HAS BEEN DETERMINED WITHOUT MAN ENTRY INTO CHAMBERS AND WHILST EVERY EFFORT HAS BEEN MADE TO CORRECTLY IDENTIFY THIS INFORMATION, IT SHOULD ALWAYS BE CHECKED IN AREAS THAT ARE CRITICAL TO THE FUTURE PROPOSAL.
3. ALL SEWERS ARE PRESUMED TO BE STRAIGHT BETWEEN CHAMBERS.
4. TREE AND HEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS.

TOPOGRAPHICAL KEY



Revision	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJ/RPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
1	Topographical area increased and Sections added.	SL/SJF	RPE	March 2015

0m 1 2 3 4 5 6 7 8 9 10 11

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Warwickshire

Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	1	February 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF	RPE

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TOPOGRAPHICAL KEY

SURVEY STATION 5

BANKING (TOP / BOTTOM)

HEDGE SPREADS

WOODLAND CANOPY

MARSH / WATERLOGGED

TREES (SPREAD & GIRTH SHOWN TO SCALE)

GATE

KERB CHANNEL

ROAD UNKERBED

FOOTPATH

CHANGE IN SURFACE

FENCE

WALL

OVERHEAD ELECTRIC

OVERHEAD TELECOM

FOUL SEWER

SURFACE SEWER

BUILDING

OPEN SIDED BUILDING

GLASSHOUSE

CONTOUR 25.50

SPOT LEVEL + 127.13

BORE HOLE BH

TRIAL HOLE TH

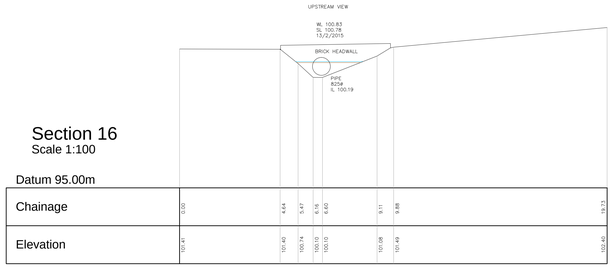
GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
ANGLE	AG
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CCTV INSPECTION COVER	CCTV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
PARKING BAYS	PB
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
TELECOM LIFT	TPL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARD FENCE	CBF
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CIL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PIR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

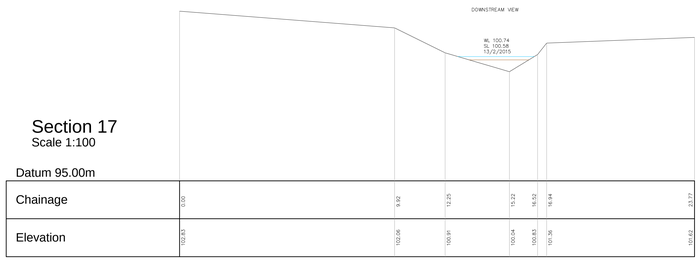
Section 16
Scale 1:100



Datum 95.00m

Chainage	0.00	4.64	5.47	6.18	6.60	9.11	9.88	19.73
Elevation	101.41	101.40	100.74	100.10	100.10	101.09	101.49	102.40

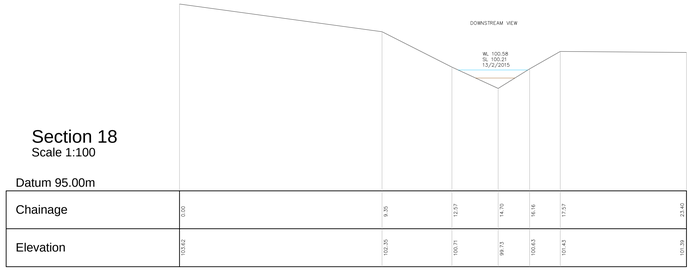
Section 17
Scale 1:100



Datum 95.00m

Chainage	0.00	9.92	13.25	15.22	16.70	16.94	23.17
Elevation	102.63	102.06	100.91	100.04	100.83	101.26	101.62

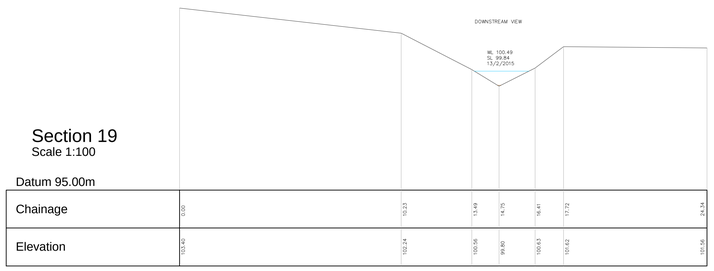
Section 18
Scale 1:100



Datum 95.00m

Chainage	0.00	9.35	12.57	14.70	16.16	17.57	23.43
Elevation	103.62	102.35	100.71	99.73	100.63	101.43	101.39

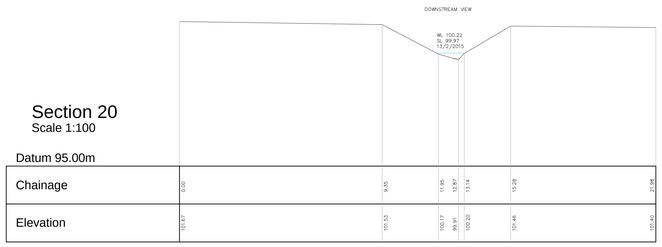
Section 19
Scale 1:100



Datum 95.00m

Chainage	0.00	10.23	11.49	14.75	16.41	17.72	24.54
Elevation	101.40	102.24	100.56	99.80	100.63	101.42	101.56

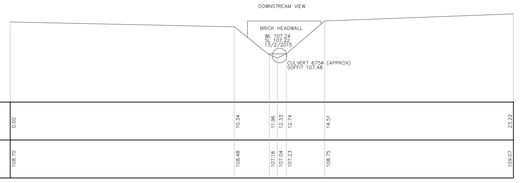
Section 20
Scale 1:100



Datum 95.00m

Chainage	0.00	9.35	11.95	12.87	13.14	15.28	21.98
Elevation	101.67	101.53	100.17	99.91	100.20	101.46	101.60

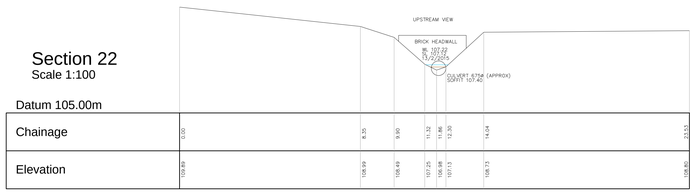
Section 21
Scale 1:100



Datum 105.00m

Chainage	0.00	10.34	11.96	13.53	15.19	16.51	23.23
Elevation	108.70	108.48	107.78	107.24	107.43	108.75	109.01

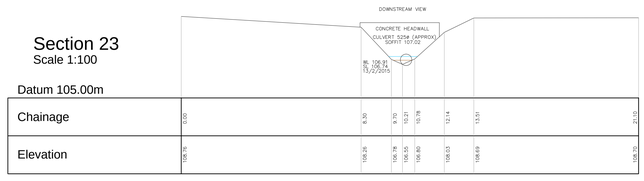
Section 22
Scale 1:100



Datum 105.00m

Chainage	0.00	8.35	9.90	11.32	11.86	12.30	14.64	23.53
Elevation	109.89	105.99	106.49	107.25	106.88	107.13	106.73	106.80

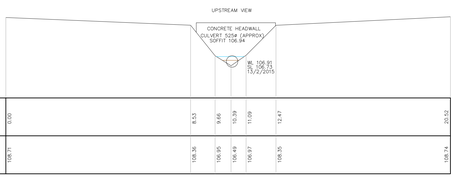
Section 23
Scale 1:100



Datum 105.00m

Chainage	0.00	8.30	9.70	10.23	10.78	12.14	13.51	21.10
Elevation	108.76	105.26	106.78	107.45	106.80	105.03	106.69	106.75

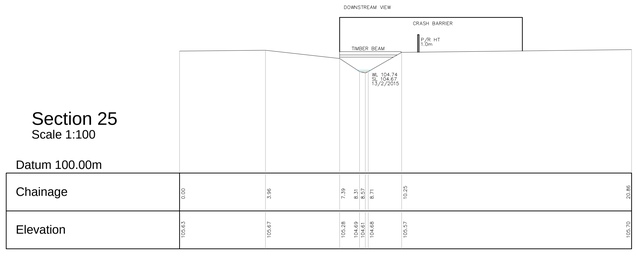
Section 24
Scale 1:100



Datum 105.00m

Chainage	0.00	8.53	9.66	10.39	11.09	12.47	20.52
Elevation	108.71	106.36	106.95	106.49	106.97	104.55	105.74

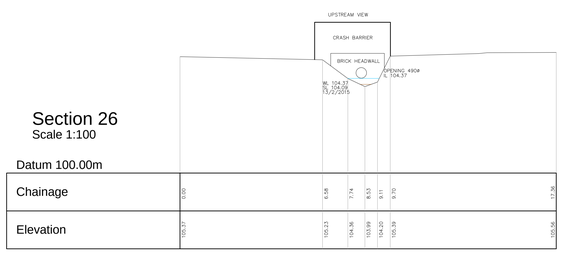
Section 25
Scale 1:100



Datum 100.00m

Chainage	0.00	3.96	7.39	8.31	8.77	10.25	20.88
Elevation	105.63	105.67	105.28	104.69	104.65	105.57	105.70

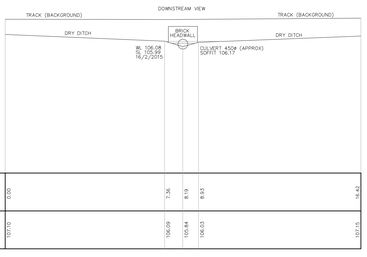
Section 26
Scale 1:100



Datum 100.00m

Chainage	0.00	6.68	7.74	8.53	9.11	9.70	17.38
Elevation	105.37	105.23	104.36	103.99	104.20	105.39	105.56

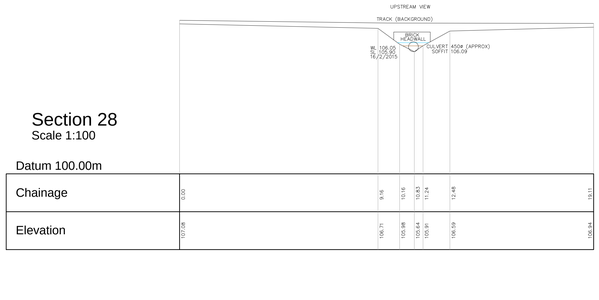
Section 27
Scale 1:100



Datum 100.00m

Chainage	0.00	7.30	8.19	8.63	16.42
Elevation	107.70	106.09	105.84	106.03	107.15

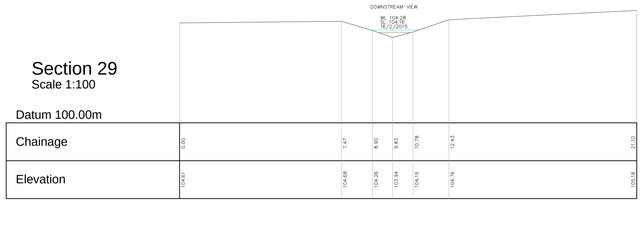
Section 28
Scale 1:100



Datum 100.00m

Chainage	0.00	9.16	10.16	10.83	11.74	12.48	19.11
Elevation	107.08	106.71	105.98	105.64	105.91	106.59	106.84

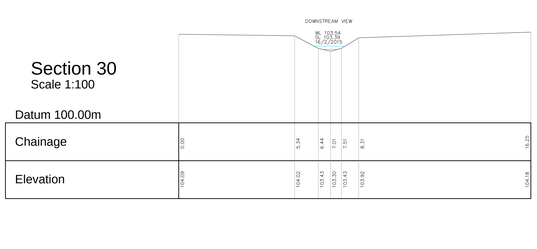
Section 29
Scale 1:100



Datum 100.00m

Chainage	0.00	7.47	8.90	9.83	10.78	12.43	21.10
Elevation	104.61	104.68	104.26	103.94	104.19	104.76	105.18

Section 30
Scale 1:100



Datum 100.00m

Chainage	0.00	5.34	6.44	7.01	7.51	8.31	14.25
Elevation	104.09	104.02	103.43	103.30	103.43	103.92	104.18

Revision	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJ/RPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
1	Topographical area increased and Sections added.	SL/SJF	RPE	March 2015

0m 1 2 3 4 5 6 7 8 9 10 11

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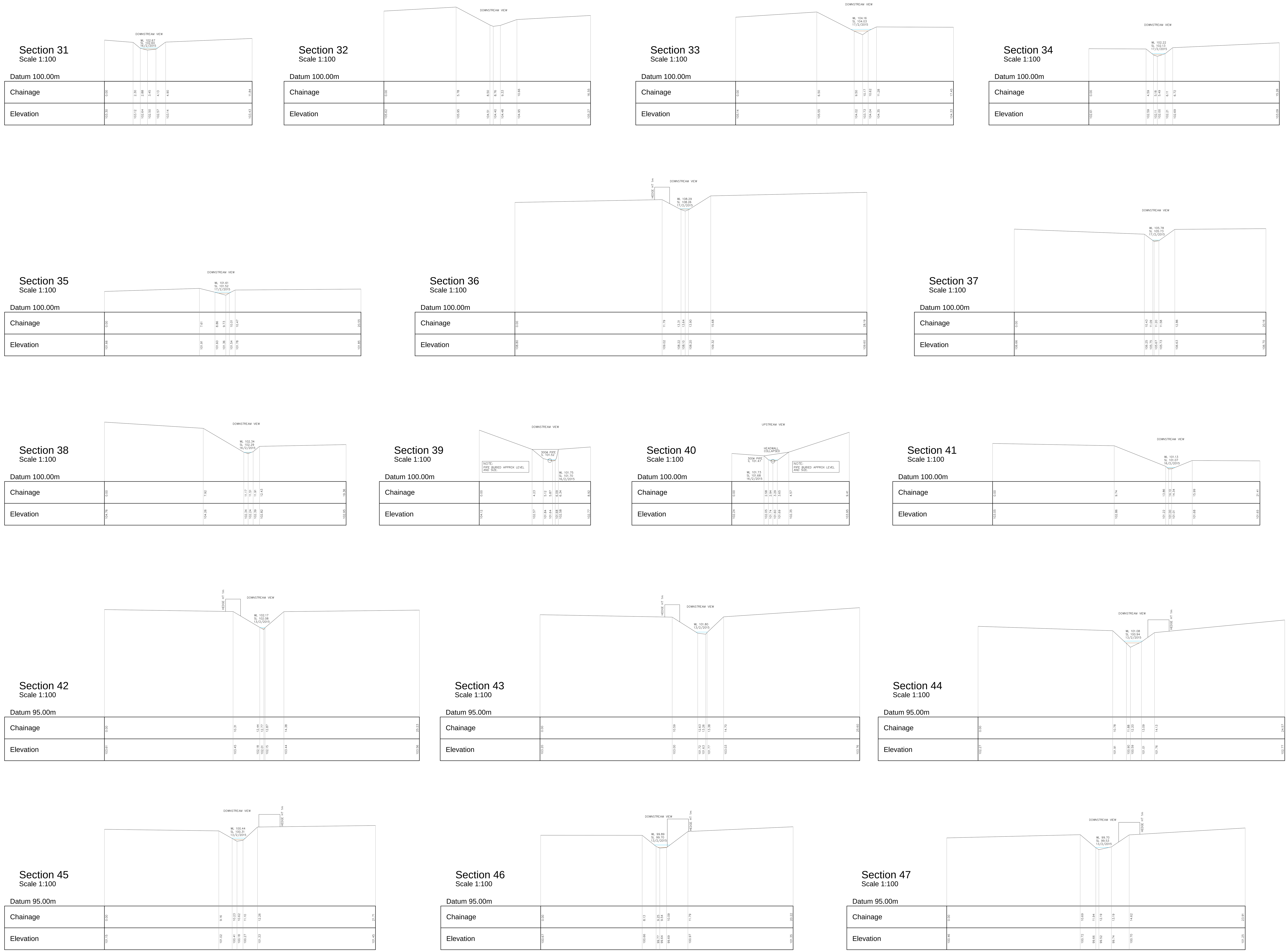
Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	2	February 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF	RPE



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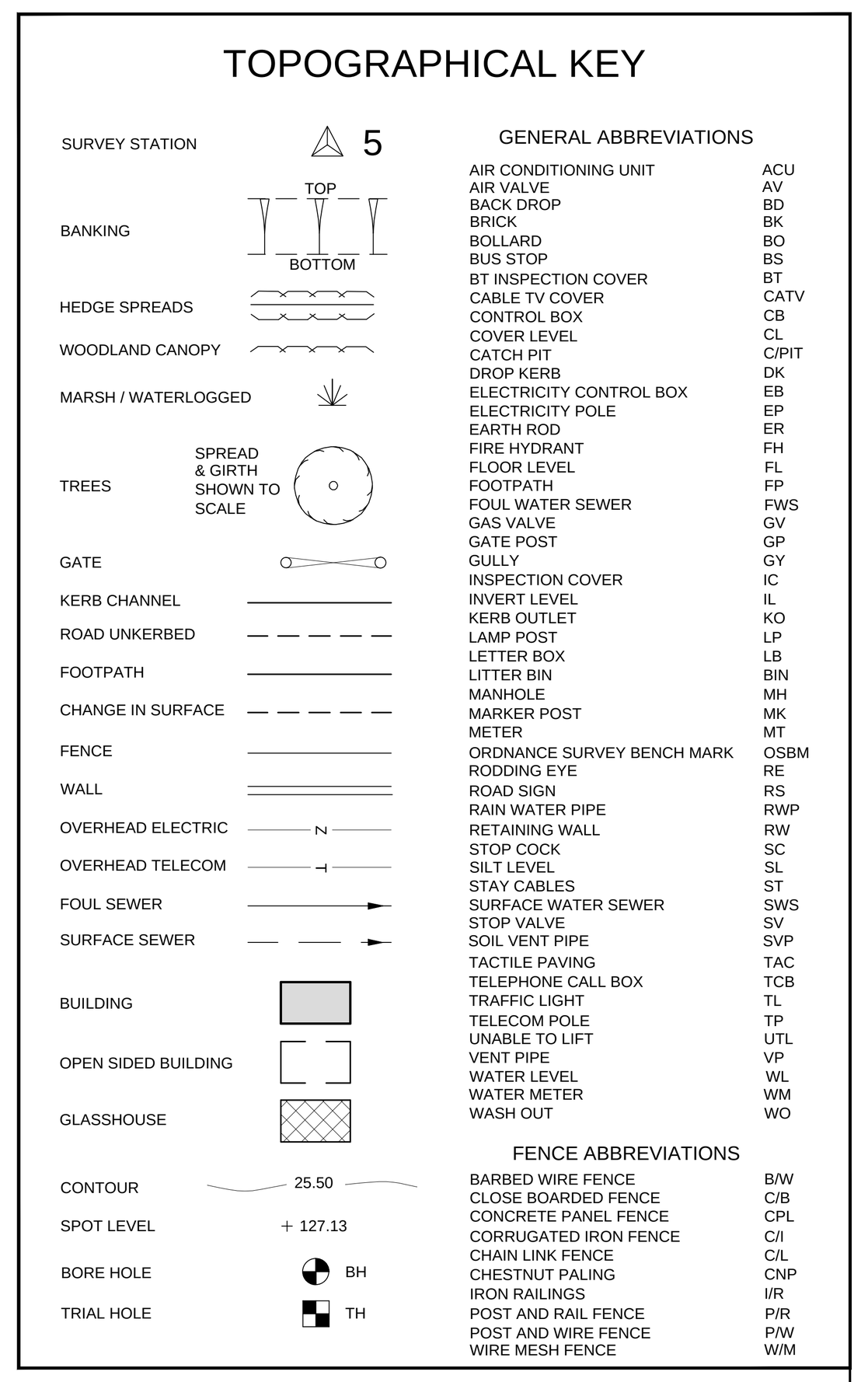

Revision	Description	Surv. by	Appr. by	Date
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0m 1 2 3 4 5 6 7 8 9 10 11

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Warwickshire

Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	3	February 2015
Project Number: 20553	Rev: 4	Surveyed By: EB/SJF	Approved By: RPE

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TOPOGRAPHICAL KEY

SURVEY STATION 5

BANKING (TOP / BOTTOM)

HEDGE SPREADS

WOODLAND CANOPY

MARSH / WATERLOGGED

TREES (SPREAD & GIRTH SHOWN TO SCALE)

GATE

KERB CHANNEL

ROAD UNKERBED

FOOTPATH

CHANGE IN SURFACE

FENCE

WALL

OVERHEAD ELECTRIC

OVERHEAD TELECOM

FOUL SEWER

SURFACE SEWER

BUILDING

OPEN SIDED BUILDING

GLASSHOUSE

CONTOUR 25.50

SPOT LEVEL + 127.13

BORE HOLE BH

TRIAL HOLE TH

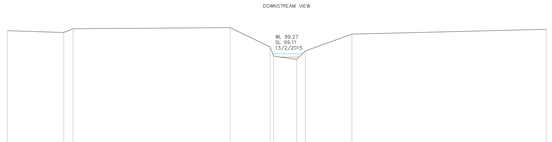
GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
ASH BIN	AB
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
PARKING BAY	PB
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
TELECOM LIFT	TPL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CONCRETE PANEL FENCE	C/PL
CORRUGATED IRON FENCE	C/I
CHAIN LINK FENCE	C/L
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

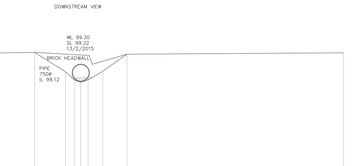
Section 48
Scale 1:100



Datum 95.00m

Chainage	0.00	0.60	1.03	10.28	12.13	12.29	13.20	13.74	15.90	24.62
Elevation	100.33	100.23	100.42	100.47	99.58	99.16	99.01	99.39	100.17	100.40

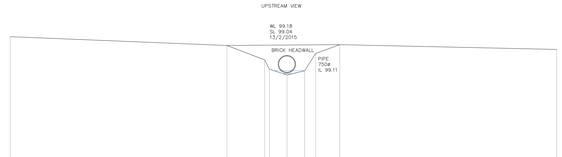
Section 49
Scale 1:100



Datum 95.00m

Chainage	0.00	10.00	11.42	11.85	12.12	12.47	12.15	14.29	24.29
Elevation	100.27	100.44	99.54	99.16	99.06	99.21	99.07	100.36	100.42

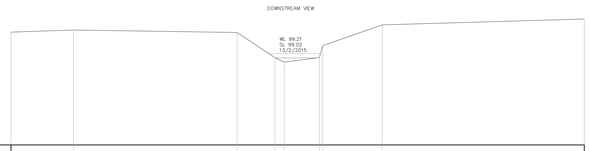
Section 50
Scale 1:100



Datum 95.00m

Chainage	0.00	10.00	11.74	11.95	12.27	13.39	14.10	15.21	25.21
Elevation	100.15	100.34	99.68	99.25	98.98	99.18	99.07	100.38	100.16

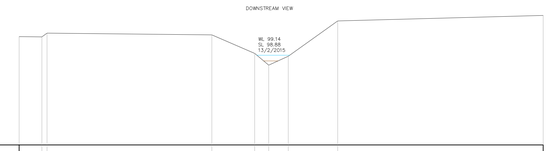
Section 51
Scale 1:100



Datum 95.00m

Chainage	0.00	2.88	10.44	12.18	12.61	14.23	14.39	17.13	26.46
Elevation	100.01	100.31	100.19	99.63	98.83	99.53	99.59	100.54	100.84

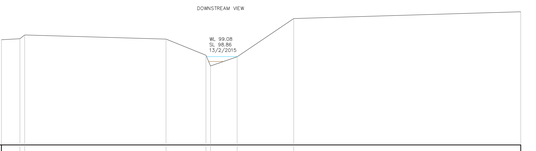
Section 52
Scale 1:100



Datum 95.00m

Chainage	0.00	0.00	1.05	1.28	8.89	10.87	11.52	12.42	14.70	24.18
Elevation	100.00	99.99	100.16	100.08	99.23	98.68	98.70	100.72	100.98

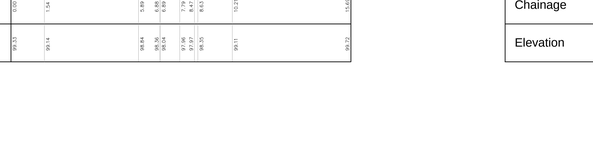
Section 53
Scale 1:100



Datum 95.00m

Chainage	0.00	0.85	1.07	7.60	9.44	9.65	10.88	13.49	23.97
Elevation	99.88	99.97	100.08	99.89	99.14	98.63	99.07	100.84	101.15

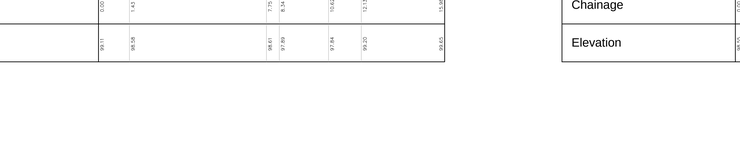
Section 54
Scale 1:100



Datum 95.00m

Chainage	0.00	9.79	12.27	12.65	13.26	15.88	26.11
Elevation	99.78	99.74	99.63	98.36	98.95	100.34	100.76

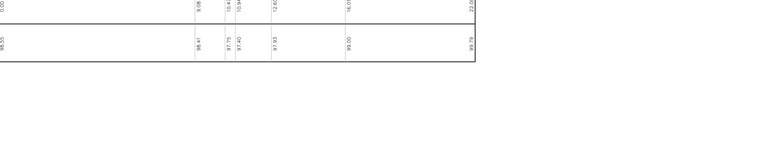
Section 55
Scale 1:100



Datum 95.00m

Chainage	0.00	10.59	13.01	14.51	14.71	16.41	25.72
Elevation	99.63	99.64	98.92	98.46	98.91	99.78	100.00

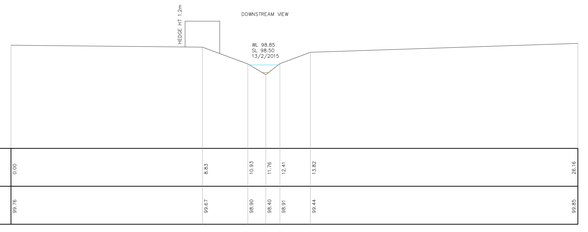
Section 56
Scale 1:100



Datum 95.00m

Chainage	0.00	9.49	11.94	12.86	13.13	14.49	25.85
Elevation	99.62	99.63	98.97	98.48	98.79	99.67	99.87

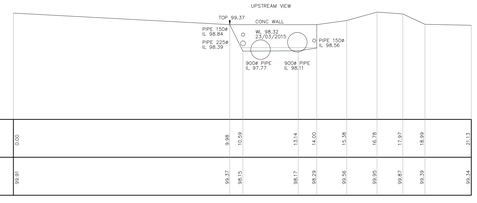
Section 57
Scale 1:100



Datum 95.00m

Chainage	0.00	8.63	10.93	11.76	12.41	13.82	26.16
Elevation	99.76	99.67	98.90	98.48	98.91	99.44	99.85

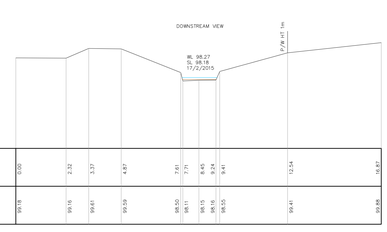
Section 58
Scale 1:100



Datum 95.00m

Chainage	0.00	8.08	10.59	13.14	14.00	15.38	16.78	17.97	18.99	23.13
Elevation	99.91	99.37	98.75	98.77	99.29	99.56	99.85	99.87	99.79	99.74

Section 59
Scale 1:100



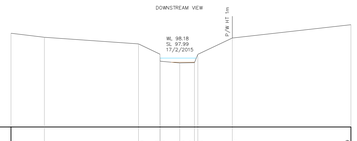
Datum 95.00m

Chainage	0.00	2.32	3.37	4.87	7.61	7.71	8.45	9.24	9.41	12.24	16.87
Elevation	99.78	99.16	99.61	99.59	98.50	98.11	98.15	98.56	98.55	99.41	99.66

Revision	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJ/RPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
1	Topographical area increased and Sections added.	SL/SJF	RPE	March 2015

0m 1 2 3 4 5 6 7 8 9 10 11

Section 60
Scale 1:100



Datum 95.00m

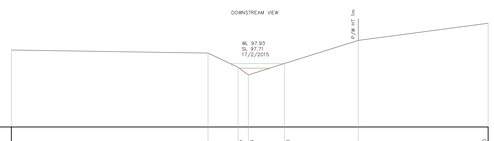
Chainage	0.00	1.54	5.89	6.85	6.99	7.79	8.47	8.63	10.27	15.69
Elevation	99.33	99.14	98.64	98.06	98.06	97.96	97.97	98.35	99.11	99.72

Section 60
Scale 1:100

Datum 95.00m

Chainage	0.00	1.43	7.75	8.34	10.62	12.13	15.98
Elevation	99.11	98.58	98.61	97.89	97.84	99.20	99.65

Section 61
Scale 1:100



Datum 95.00m

Chainage	0.00	9.08	10.47	10.94	12.60	16.01	22.65
Elevation	98.55	98.41	97.75	97.42	97.93	99.00	99.79

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Tel 01908 565561 — Milton Keynes — enquiries@mksurveys.co.uk
Tel 01865 394979 — Oxford — oxford@mksurveys.co.uk
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Tel 01384 404202 — West Midlands — westmidlands@mksurveys.co.uk
Tel 01403 243400 — Horsham — horsham@mksurveys.co.uk

www.mksurveys.com — www.surveys4bim.co.uk

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Coventry Road
Rugby
Warwickshire

Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	4	February 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF	RPE

Notes :

1. GRID AND LEVELS BASED ON ORDNANCE DATUM, DERIVED FROM THE NATIONAL GPS NETWORK, LOCAL SCALE FACTOR USED: 0.99963.
2. DRAINAGE INFORMATION HAS BEEN DETERMINED WITHOUT MAN ENTRY INTO CHAMBERS AND WHILST EVERY EFFORT HAS BEEN MADE TO CORRECTLY IDENTIFY THIS INFORMATION, IT SHOULD ALWAYS BE CHECKED IN AREAS THAT ARE CRITICAL TO THE FUTURE PROPOSAL.
3. ALL SEWERS ARE PRESUMED TO BE STRAIGHT BETWEEN CHAMBERS.
4. TREE AND HEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS.

TOPOGRAPHICAL KEY

SURVEY STATION
BANKING (TOP / BOTTOM)
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES (SPREAD & GIRTH SHOWN TO SCALE)
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR (25.50)
SPOT LEVEL (+ 127.13)
BORE HOLE (BH)
TRIAL HOLE (TH)

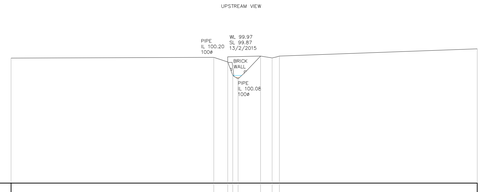
GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
ASH BIN	AB
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CCTV CAMERA	CCTV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GUILLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
PARKING BAY	PB
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
TELECOM LIFT	TPL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARD FENCE	CBF
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CIL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PIR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

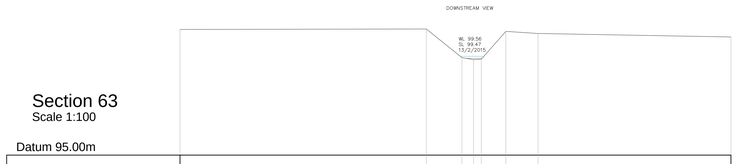
Section 62
Scale 1:100



Datum 95.00m

Chainage	0.00	4.94	8.69	10.23	10.48	11.51	12.05	12.38	21.51
Elevation	100.17	100.81	100.59	99.68	99.62	100.87	100.78	100.86	101.20

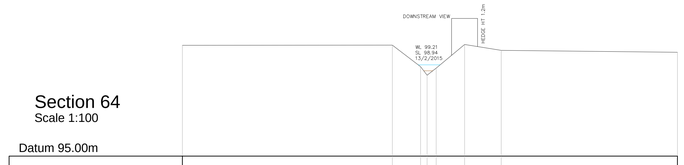
Section 63
Scale 1:100



Datum 95.00m

Chainage	0.00	11.36	13.01	13.55	13.80	15.04	16.52	25.42
Elevation	100.80	100.62	99.50	99.41	99.43	100.71	100.62	100.66

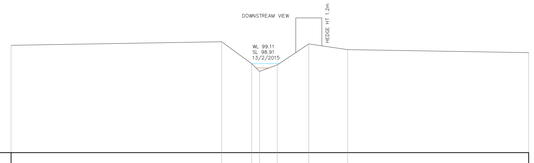
Section 64
Scale 1:100



Datum 95.00m

Chainage	0.00	9.69	10.39	11.09	11.71	13.62	14.77	27.84
Elevation	100.12	100.12	99.13	99.06	99.06	100.16	99.88	99.80

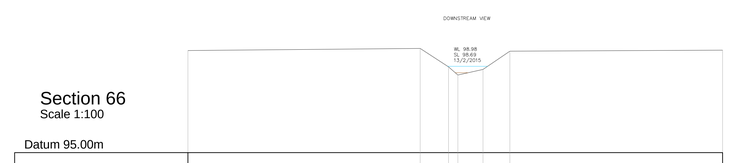
Section 65
Scale 1:100



Datum 95.00m

Chainage	0.00	9.72	11.10	11.47	12.28	13.74	15.53	23.69
Elevation	99.95	100.12	99.15	99.10	99.05	100.02	99.75	99.61

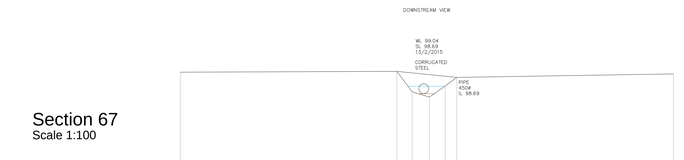
Section 66
Scale 1:100



Datum 95.00m

Chainage	0.00	10.72	12.03	12.46	13.62	14.86	24.68
Elevation	99.71	99.81	98.90	98.58	98.84	99.66	99.73

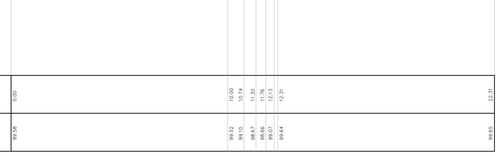
Section 67
Scale 1:100



Datum 95.00m

Chainage	0.00	10.00	10.70	11.50	12.23	13.76	22.76
Elevation	99.66	99.72	99.78	99.53	99.05	99.44	99.63

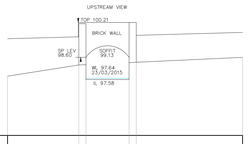
Section 68
Scale 1:100



Datum 95.00m

Chainage	0.00	10.00	10.74	11.09	11.56	12.13	12.31	22.31
Elevation	99.58	99.62	99.10	98.86	98.66	99.07	99.64	99.65

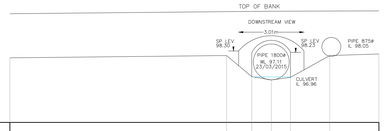
Section 70
Scale 1:100



Datum 95.00m

Chainage	0.00	3.29	3.62	5.41	5.94	10.84
Elevation	97.74	98.25	97.58	97.58	98.37	98.60

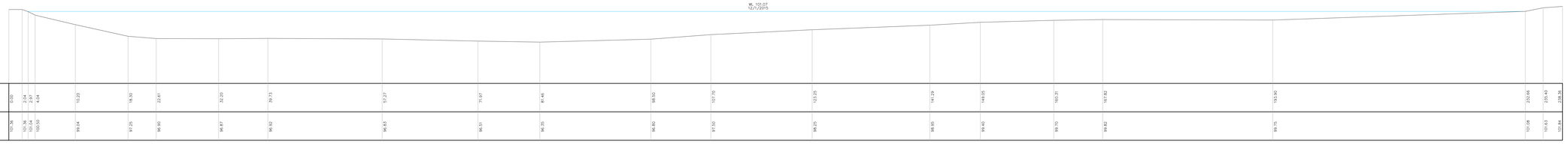
Section 71
Scale 1:100



Datum 95.00m

Chainage	0.00	9.99	11.16	12.06	12.95	14.76	17.03
Elevation	97.88	98.09	97.11	96.96	97.07	98.09	98.76

Section 69
Scale 1:250



Datum 90.00m

Chainage	0.00	2.04	2.84	4.64	10.20	18.50	22.61	32.29	39.73	57.27	71.97	87.46	98.50	107.70	123.25	141.29	148.05	160.31	161.82	193.90	233.66	235.40	236.36
Elevation	101.38	101.36	101.36	100.50	99.04	97.25	96.90	96.87	96.92	96.83	96.51	96.35	96.80	97.50	98.25	98.95	99.40	99.70	99.82	99.75	101.08	101.63	101.94

Revision	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJRPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
1	Topographical area increased and Sections added.	SLS/F	RPE	March 2015

0m 1 2 3 4 5 6 7 8 9 10 11
1:100 Scale Bar
1:250 Scale Bar
0m 5 10 15 20 25

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Tel 01865 594979
Tel 0116 2849127
Tel 01384 404203
Tel 01403 242162

Milton Keynes
Oxford
East Midlands
West Midlands
Horsham

enquiries@mksurveys.co.uk
oxford@mksurveys.co.uk
eastmidlands@mksurveys.co.uk
westmidlands@mksurveys.co.uk
horsham@mksurveys.co.uk

www.mksurveys.com
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Coventry Road
Rugby
Warwickshire

Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100 & 1:250	A0	5	February 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	EB/SJF	RPE

Notes :

1. GRID AND LEVELS BASED ON ORDNANCE DATUM, DERIVED FROM THE NATIONAL GPS NETWORK, LOCAL SCALE FACTOR USED: 0.99963.
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4. TREE AND HEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS.

TOPOGRAPHICAL KEY

SURVEY STATION — 5

BANKING — TOP / BOTTOM

HEDGE SPREADS

WOODLAND CANOPY

MARSH / WATERLOGGED

TREES — SPREAD & GIRTH SHOWN TO SCALE

GATE

KERB CHANNEL

ROAD UNKERBED

FOOTPATH

CHANGE IN SURFACE

FENCE

WALL

OVERHEAD ELECTRIC

OVERHEAD TELECOM

FOUL SEWER

SURFACE SEWER

BUILDING

OPEN SIDED BUILDING

GLASSHOUSE

CONTOUR — 25.50

SPOT LEVEL — + 127.13

BORE HOLE — BH

TRIAL HOLE — TH

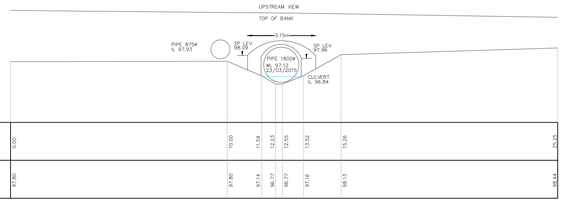
GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
ASH BIN	AB
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CCTV CAMERA	CCTV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
PARKING BAY	PB
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
TELECOM LIFT	TPL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARDED FENCE	CBF
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CIL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PIR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

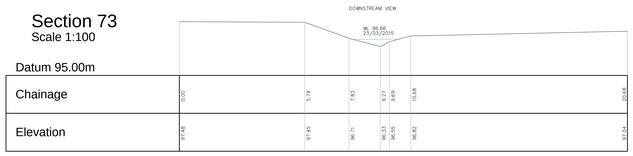
Section 72
Scale 1:100



Datum 95.00m

Chainage	0.00	10.00	11.59	13.23	13.55	13.52	15.26	29.75
Elevation	97.80	97.80	97.14	96.77	96.77	97.16	98.13	98.44

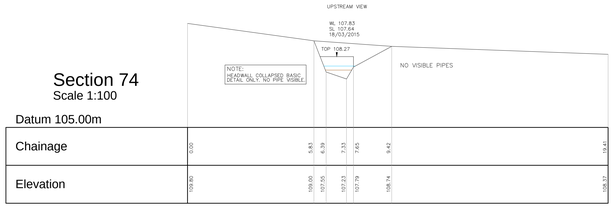
Section 73
Scale 1:100



Datum 95.00m

Chainage	0.00	5.79	7.83	8.37	9.69	10.68	20.68
Elevation	97.48	97.45	96.71	96.32	96.55	96.82	97.04

Section 74
Scale 1:100



Datum 105.00m

Chainage	0.00	5.83	6.39	7.33	7.65	8.42	19.42
Elevation	109.80	109.00	107.55	107.23	107.79	106.74	106.72

Section 75
Scale 1:100

Datum 105.00m

Chainage	0.00	10.82	12.18	12.86	13.78	14.83	18.97
Elevation	108.34	108.62	108.07	107.71	108.07	109.20	109.75

Section 76
Scale 1:100

Datum 105.00m

Chainage	0.00	10.00	11.00	11.34	12.25	24.15
Elevation	108.11	108.27	107.90	107.84	108.31	110.37

Section 77
Scale 1:100

Datum 105.00m

Chainage	0.00	8.61	9.98	10.39	11.84	12.88	15.40
Elevation	109.24	109.16	108.53	108.41	108.65	109.38	109.64

Section 78
Scale 1:100

Datum 105.00m

Chainage	0.00	10.65	11.89	12.26	13.05	14.11	24.11
Elevation	110.19	110.04	109.53	109.12	109.27	110.08	110.24

Section 79
Scale 1:100

Datum 105.00m

Chainage	0.00	9.44	11.34	11.97	12.92	14.56	24.61
Elevation	111.10	110.95	110.11	109.87	110.09	111.07	112.07

Section 80
Scale 1:100

Datum 105.00m

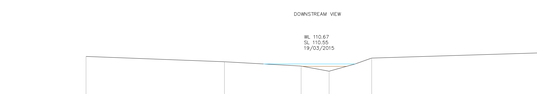
Chainage	0.00	8.86	10.52	11.72	13.05	14.21	24.46
Elevation	111.82	111.07	110.20	109.94	110.26	111.36	111.81

Section 81
Scale 1:100

Datum 105.00m

Chainage	0.00	9.99	10.81	11.48	12.70	14.17	24.17
Elevation	111.53	111.15	110.23	109.90	110.19	111.25	111.64

Section 82
Scale 1:100



Datum 105.00m

Chainage	0.00	6.38	8.92	11.21	13.18	23.18
Elevation	111.01	110.77	110.57	110.34	110.94	111.25

Section 83
Scale 1:100

Datum 105.00m

Chainage	0.00	9.91	11.45	11.81	12.65	13.42	23.82
Elevation	113.61	112.24	111.28	111.16	111.31	111.93	112.24

Section 84
Scale 1:100

Datum 110.00m

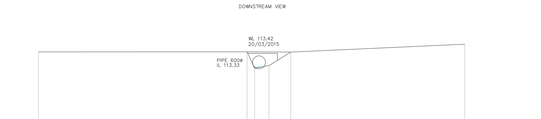
Chainage	0.00	10.00	11.67	12.32	12.83	14.26	24.24
Elevation	113.77	113.53	112.57	112.41	112.56	113.47	114.09

Section 85
Scale 1:100

Datum 110.00m

Chainage	0.00	7.14	13.10
Elevation	113.55	112.78	112.84

Section 86
Scale 1:100



Datum 110.00m

Chainage	0.00	8.42	9.97	10.43	11.64	18.67
Elevation	114.11	114.12	113.35	113.48	114.10	114.47

Rev	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJ/RPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
1	Topographical area increased and Sections added.	SL/SJF	RPE	March 2015

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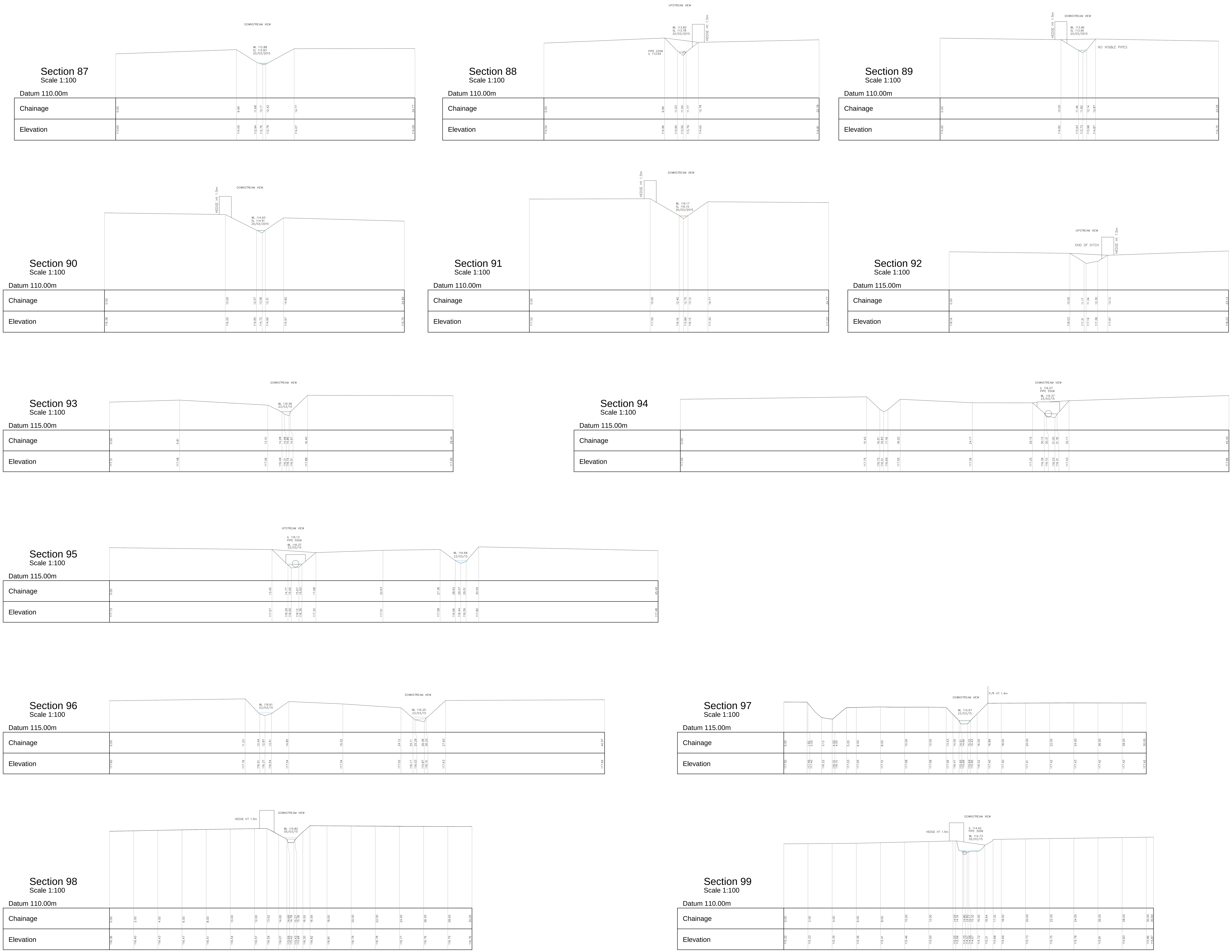
Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	6	March 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	SJF	RPE



Notes :

1. GRID AND LEVELS BASED ON ORDNANCE DATUM, DERIVED FROM THE NATIONAL GPS NETWORK. LOCAL SCALE FACTOR USED: 0.99963.
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TOPOGRAPHICAL KEY

SURVEY STATION 5
BANKING (TOP / BOTTOM)
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES — SPREAD & GIRTH SHOWN TO SCALE
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR 25.50
SPOT LEVEL + 127.13
BORE HOLE BH
TRIAL HOLE TH

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
AIR VALVE	AV
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CABLE TV COVER	CATV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	C/PIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
FOUL WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GULLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
RODDING EYE	RE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
UNABLE TO LIFT	UTL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	B/W
CLOSE BOARDED FENCE	C/B
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	C/I
CHAIN LINK FENCE	C/L
CHESTNUT PALING	CNP
IRON RAILINGS	I/R
POST AND RAIL FENCE	P/R
POST AND WIRE FENCE	P/W
WIRE MESH FENCE	W/M

Revision	Description	Surv. by	Appr. by	Date
4	Survey extended to cover Deeley Land and Checkley Land.	MJW	AJ/RPE	July 2016
3	Topographical area increased and Sections added.	SCJ	HAC	May 2015
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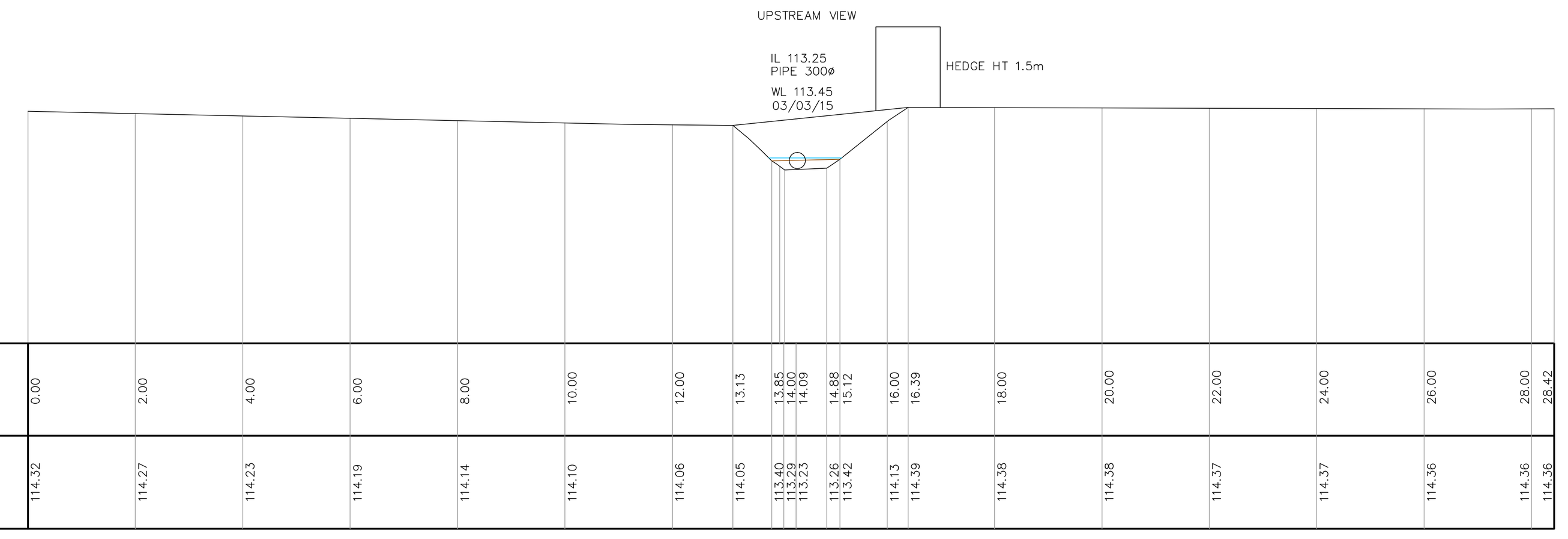
Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	7	March 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	SJF/SL	RPE

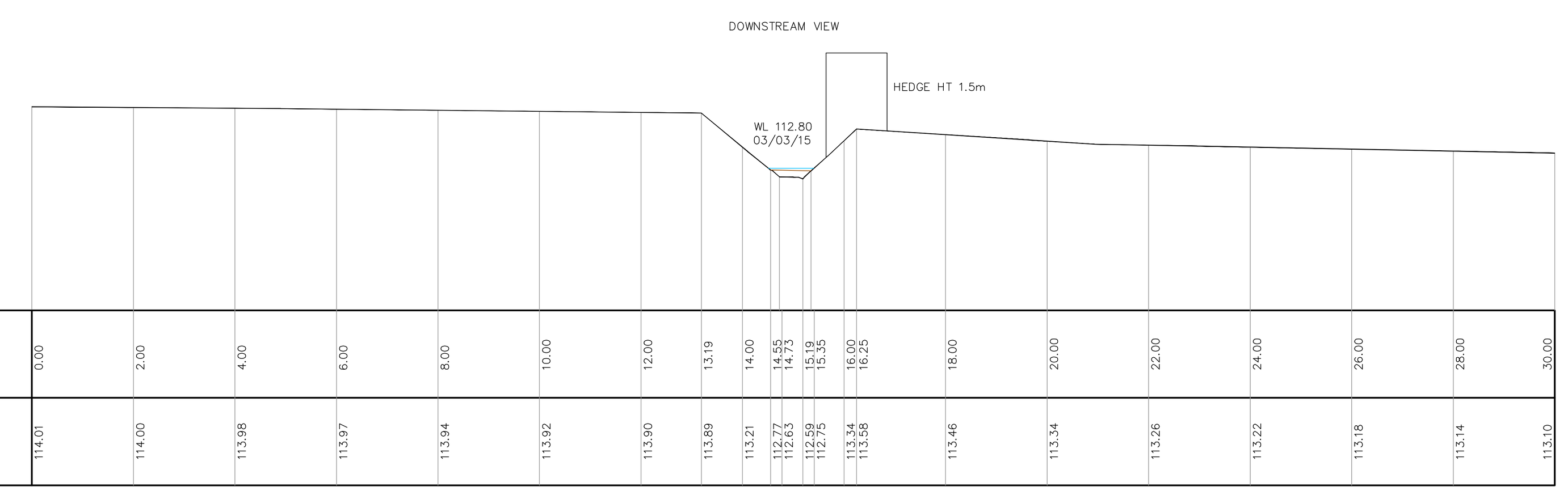
Section 100
Scale 1:100

Datum 110.00m



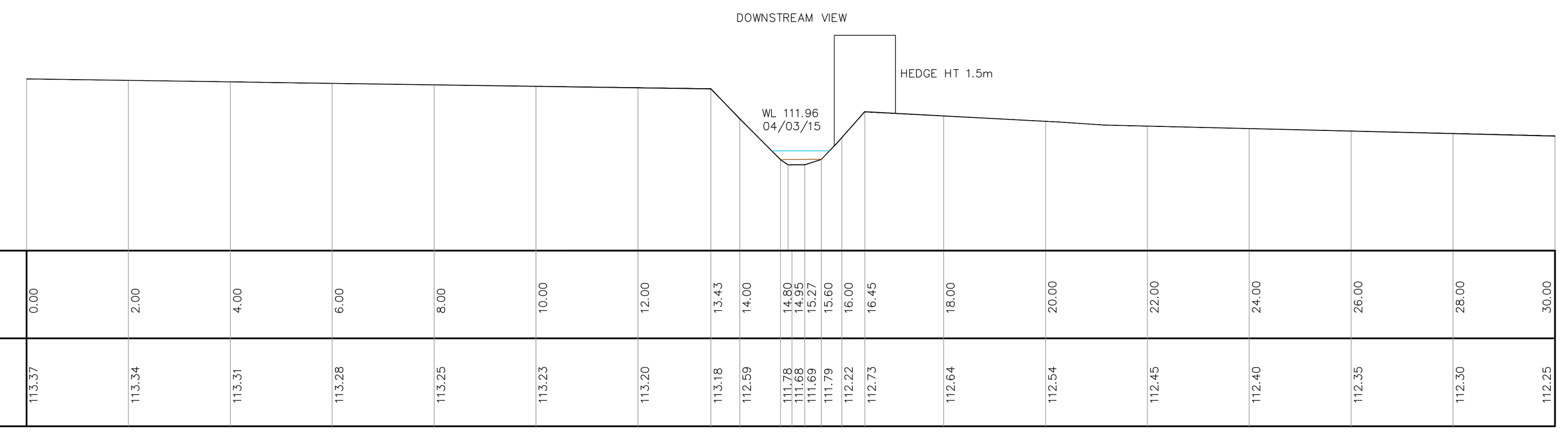
Section 101
Scale 1:100

Datum 110.00m



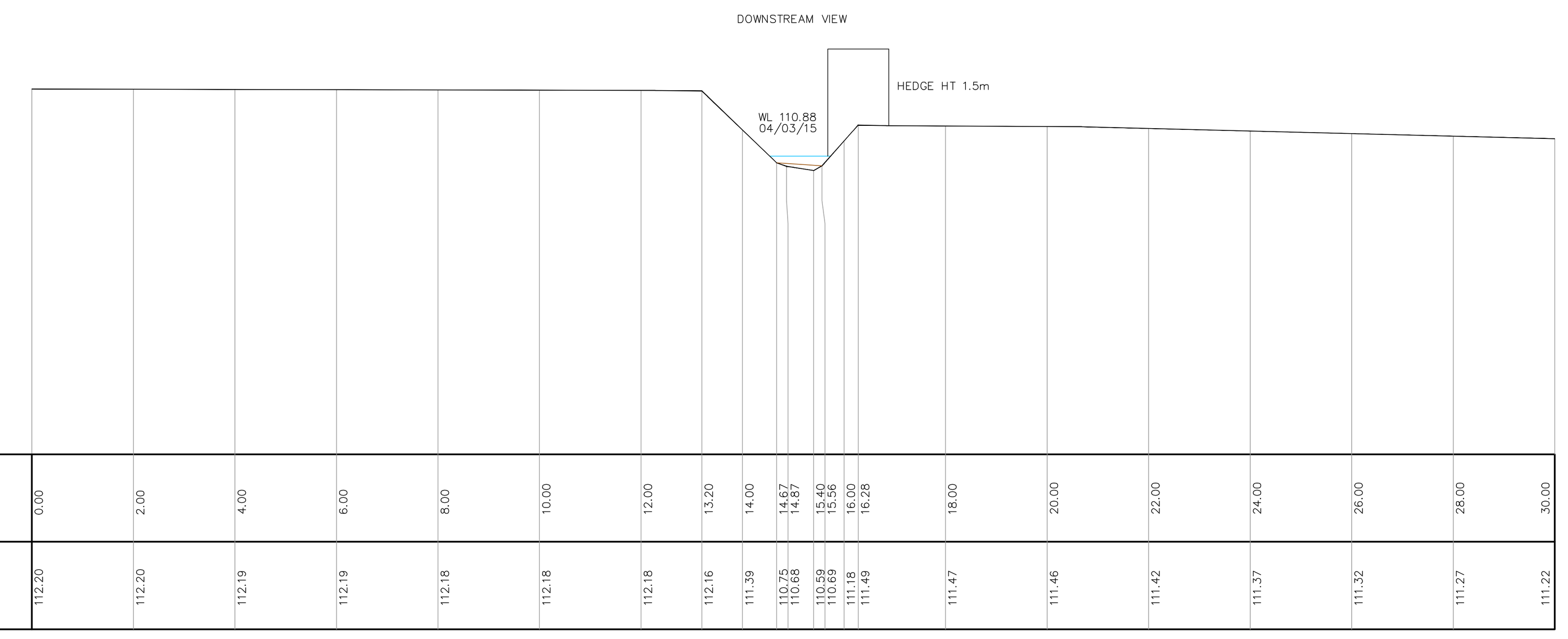
Section 102
Scale 1:100

Datum 110.00m



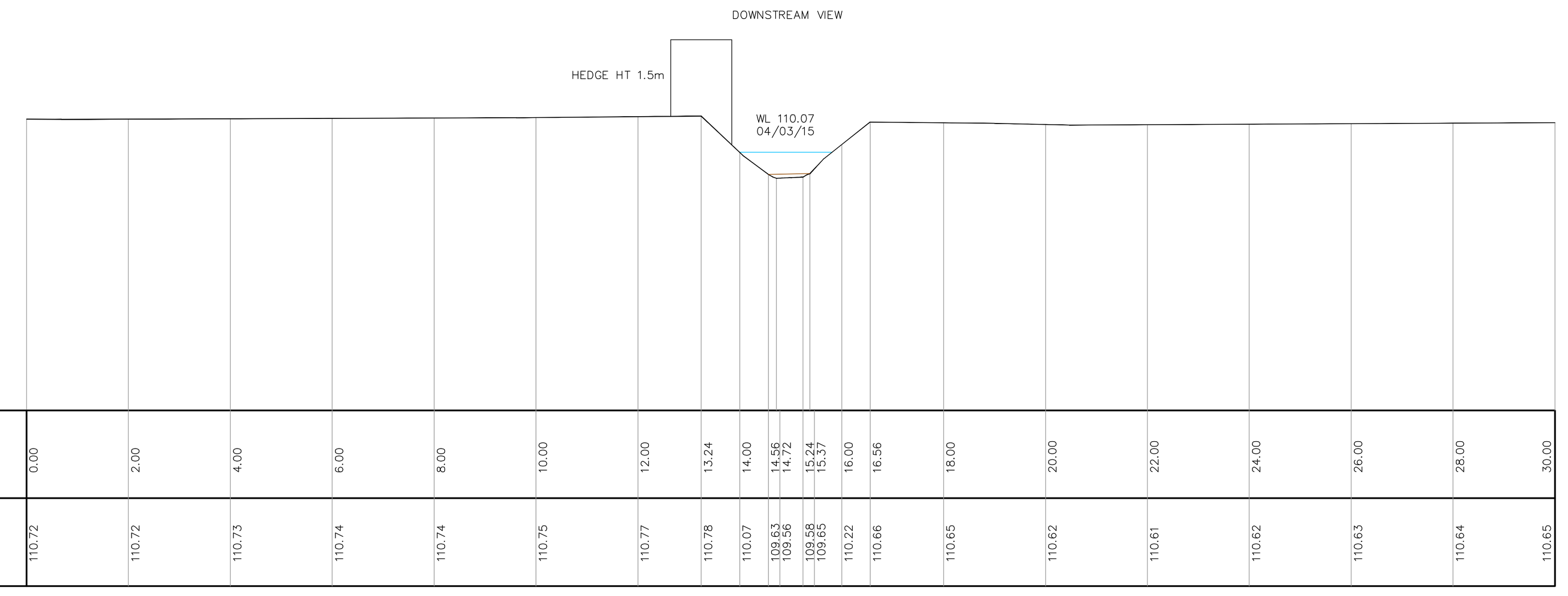
Section 103
Scale 1:100

Datum 105.00m



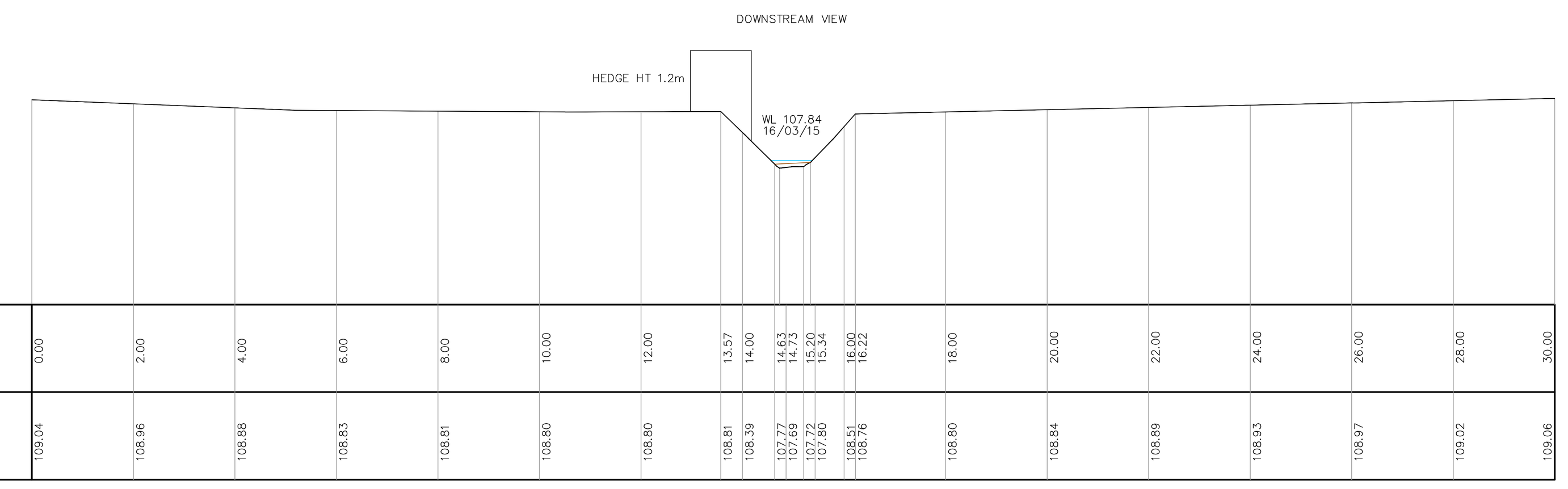
Section 104
Scale 1:100

Datum 105.00m



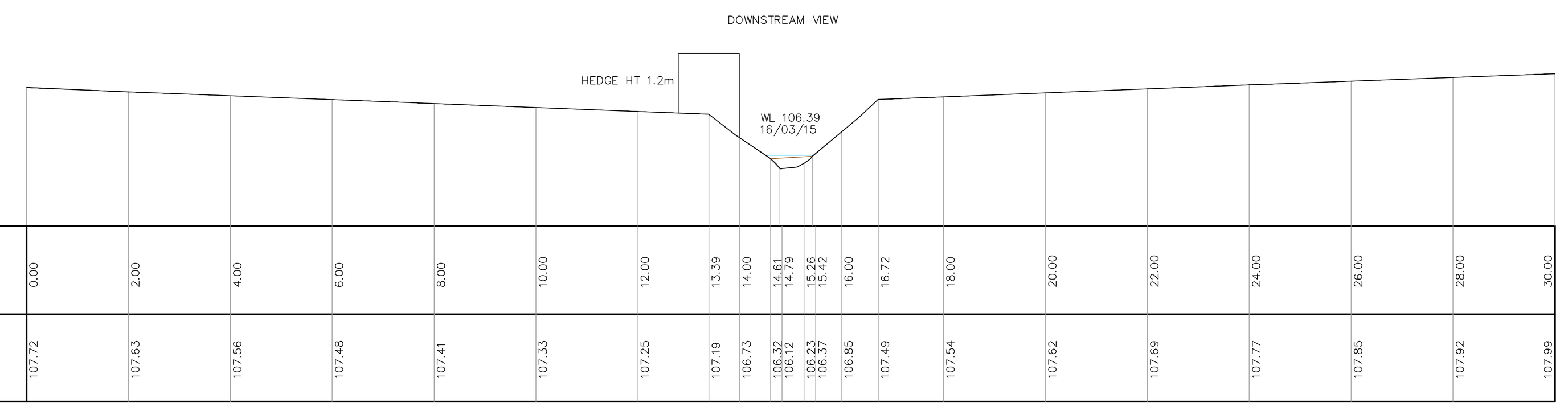
Section 105
Scale 1:100

Datum 105.00m



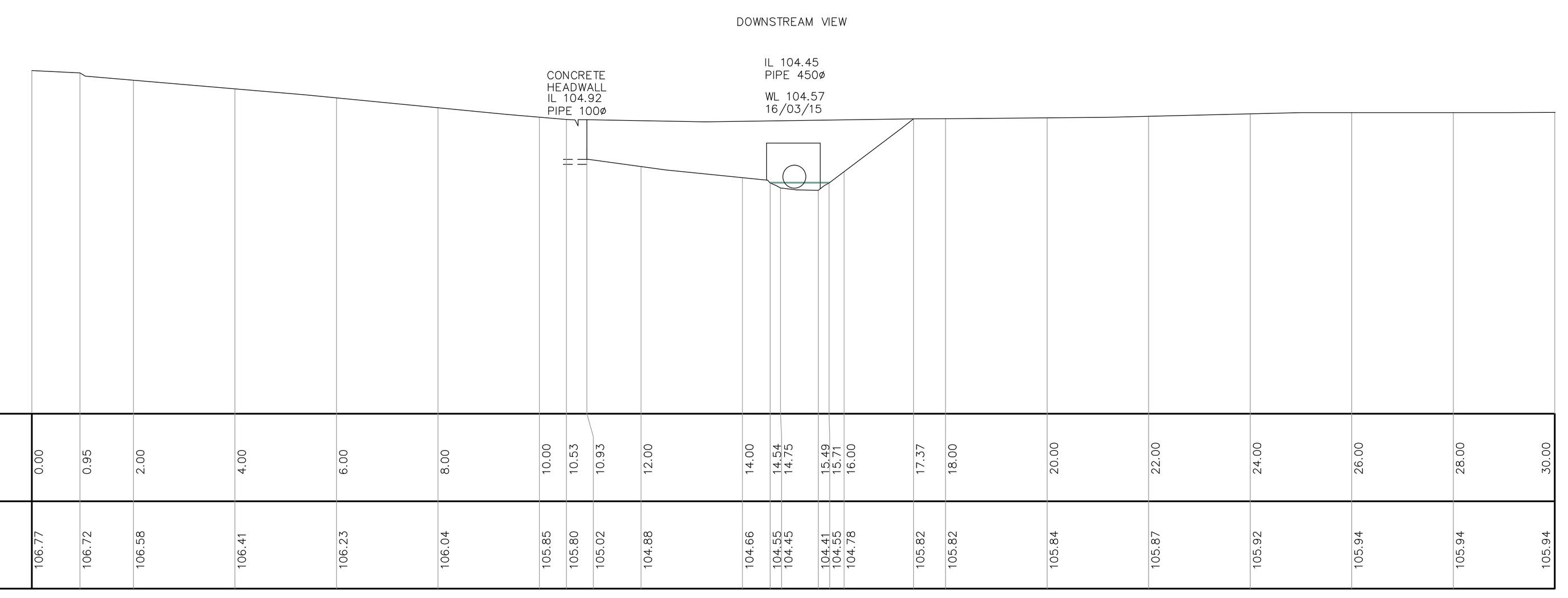
Section 106
Scale 1:100

Datum 105.00m



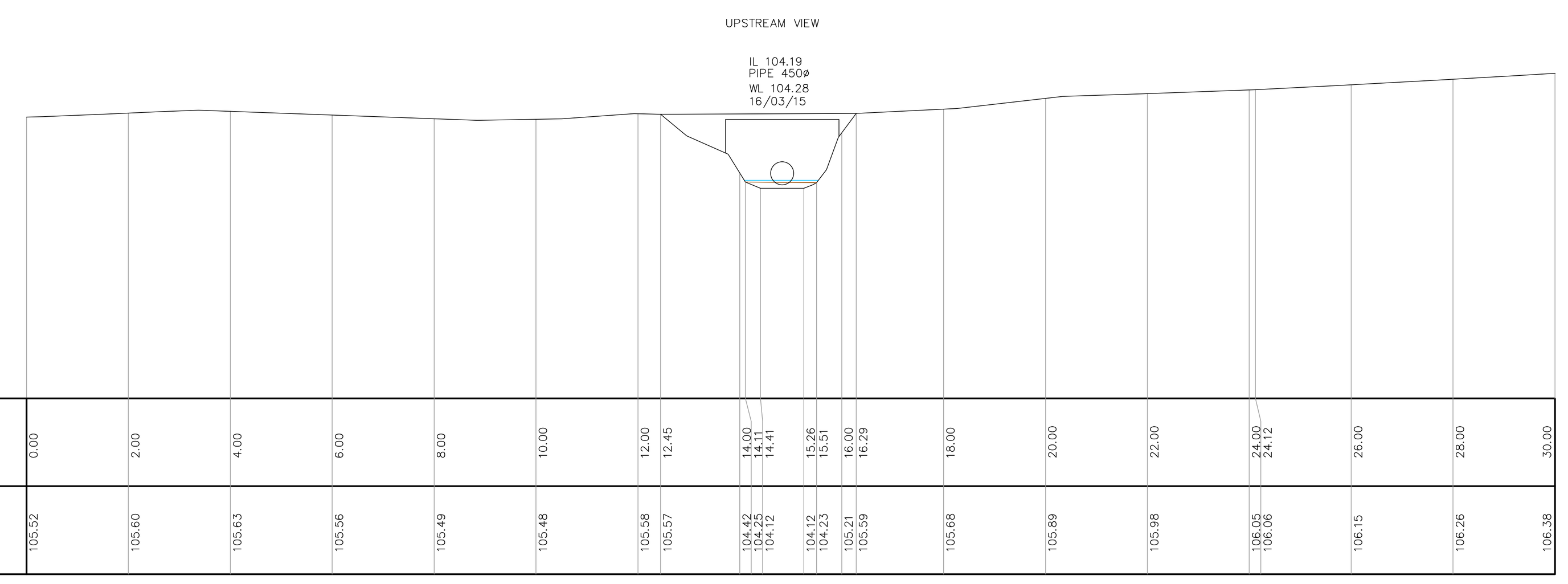
Section 107
Scale 1:100

Datum 100.00m



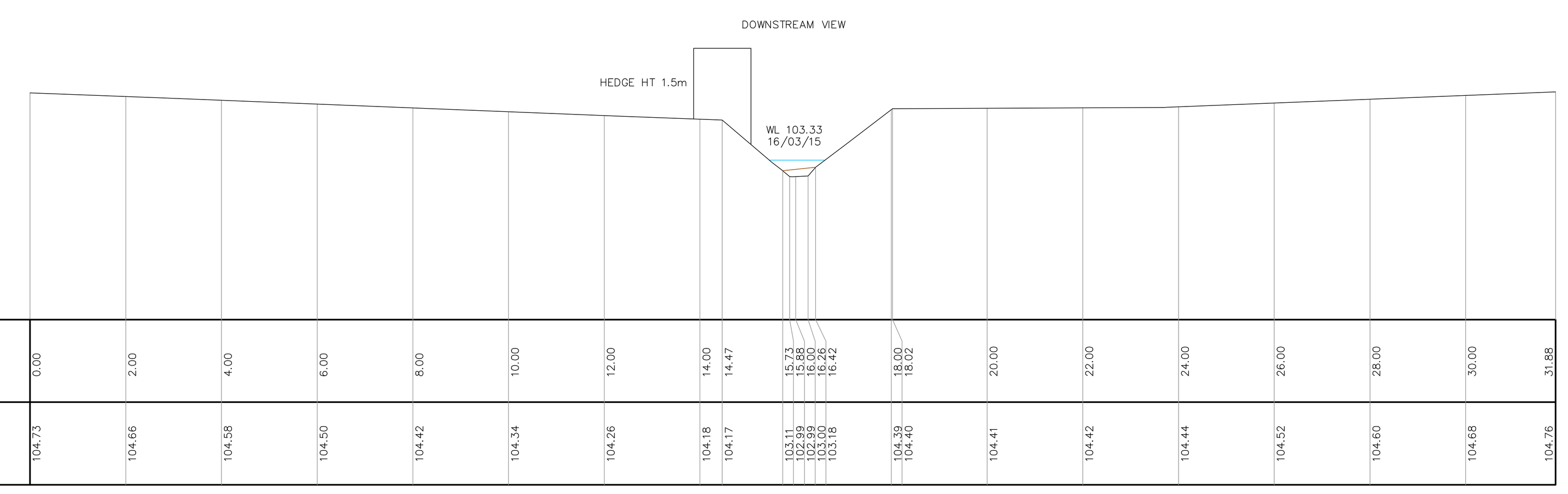
Section 108
Scale 1:100

Datum 100.00m



Section 109
Scale 1:100

Datum 100.00m



Notes :

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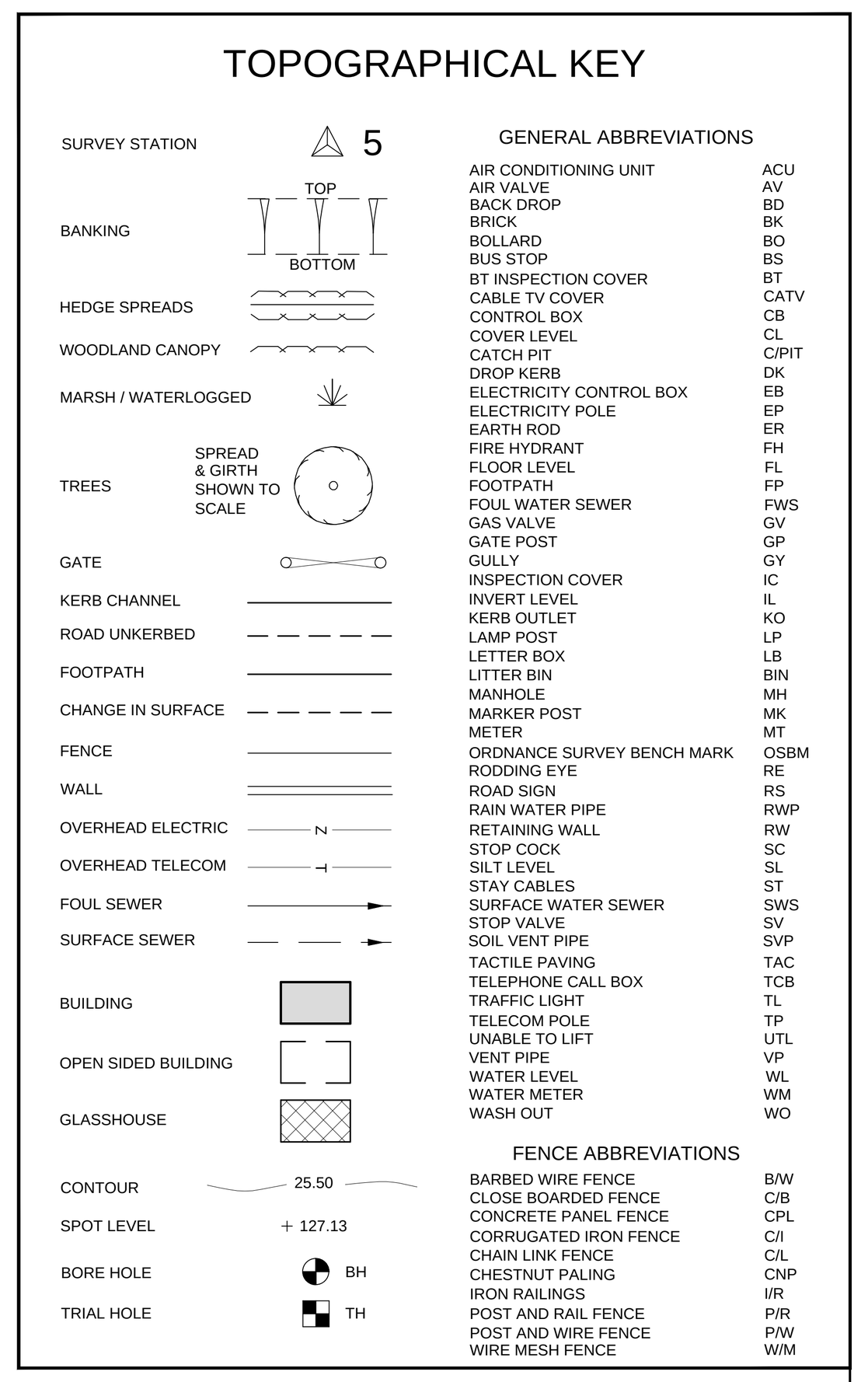

Revision	Description	Surv. by	Appr. by	Date
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Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	8	March 2015

Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	SL	RPE

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TOPOGRAPHICAL KEY

SURVEY STATION
BANKING
HEDGE SPREADS
WOODLAND CANOPY
MARSH / WATERLOGGED
TREES
GATE
KERB CHANNEL
ROAD UNKERBED
FOOTPATH
CHANGE IN SURFACE
FENCE
WALL
OVERHEAD ELECTRIC
OVERHEAD TELECOM
FOUL SEWER
SURFACE SEWER
BUILDING
OPEN SIDED BUILDING
GLASSHOUSE
CONTOUR
SPOT LEVEL
BORE HOLE
TRIAL HOLE

GENERAL ABBREVIATIONS

AIR CONDITIONING UNIT	ACU
ANTENNA	AE
BACK DROP	BD
BRICK	BK
BOLLARD	BO
BUS STOP	BS
BT INSPECTION COVER	BT
CCTV CAMERA	CCTV
CONTROL BOX	CB
COVER LEVEL	CL
CATCH PIT	CPIT
DROP KERB	DK
ELECTRICITY CONTROL BOX	EB
ELECTRICITY POLE	EP
EARTH ROD	ER
FIRE HYDRANT	FH
FLOOR LEVEL	FL
FOOTPATH	FP
GAS / WATER SEWER	FWS
GAS VALVE	GV
GATE POST	GP
GUILLY	GY
INSPECTION COVER	IC
INVERT LEVEL	IL
KERB OUTLET	KO
LAMP POST	LP
LETTER BOX	LB
LITTER BIN	BIN
MANHOLE	MH
MARKER POST	MK
METER	MT
ORDNANCE SURVEY BENCH MARK	OSBM
PEDESTAL	PE
ROAD SIGN	RS
RAIN WATER PIPE	RWP
RETAINING WALL	RW
STOP COCK	SC
SILT LEVEL	SL
STAY CABLES	ST
SURFACE WATER SEWER	SWS
STOP VALVE	SV
SOIL VENT PIPE	SVP
TACTILE PAVING	TAC
TELEPHONE CALL BOX	TCB
TRAFFIC LIGHT	TL
TELECOM POLE	TP
TELECOM LIFT	TPL
VENT PIPE	VP
WATER LEVEL	WL
WATER METER	WM
WASH OUT	WO

FENCE ABBREVIATIONS

BARBED WIRE FENCE	BW
CLOSE BOARDED FENCE	CBF
CONCRETE PANEL FENCE	CPL
CORRUGATED IRON FENCE	CI
CHAIN LINK FENCE	CIL
CHESTNUT PALING	CNP
IRON RAILINGS	IR
POST AND RAIL FENCE	PIR
POST AND WIRE FENCE	PW
WIRE MESH FENCE	WM

Section 110
Scale 1:100

UPSTREAM VIEW

BRICK HEADWALL

IL 117.01
PIPE 225ø
WL 117.20
27/05/15

Datum 115.00m

Chainage	0.00	2.00	4.67	4.84	5.06	5.42	8.00	8.99
Elevation	118.05	117.98	117.87	116.97	117.87	117.80	117.91	118.00

Section 111
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

SL 117.07

Datum 115.00m

Chainage	0.00	2.00	4.00	5.39	5.58	5.92	6.42	9.00	10.00	11.04
Elevation	118.24	118.50	118.31	118.32	118.31	117.02	118.00	118.11	118.20	

Section 112
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

IL 116.64
27/05/15

Datum 115.00m

Chainage	0.00	2.00	4.34	4.58	5.40	5.60	6.77	8.60	10.00	11.80
Elevation	117.41	117.56	117.20	117.29	116.60	116.60	117.42	117.44	117.47	117.50

Section 113
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

IL 115.82
27/05/15

Datum 115.00m

Chainage	0.00	2.00	4.25	5.70	7.05	7.85	9.33	10.00	12.00	14.18
Elevation	116.81	116.81	116.81	116.90	115.77	115.77	116.91	116.92	116.97	117.01

Section 114
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

SL 114.84

Datum 110.00m

Chainage	0.00	2.00	4.00	5.07	6.26	7.45	8.25	9.24	10.00	12.00	14.11
Elevation	115.35	115.45	115.56	115.61	115.68	114.67	114.67	115.75	115.76	115.80	115.83

Section 115
Scale 1:100

DOWNSTREAM VIEW

DOWNSTREAM VIEW

Datum 105.00m

Chainage	0.00	2.18	3.37	4.25	5.06	7.91
Elevation	109.47	109.47	108.91	108.94	109.24	109.28

Section 116
Scale 1:100

DOWNSTREAM VIEW

SL 108.16
IL 107.86

Datum 105.00m

Chainage	0.00	1.63	2.39	3.47	4.46	7.50
Elevation	108.63	108.44	108.02	107.99	108.41	108.34

Section 117
Scale 1:100

DOWNSTREAM VIEW

SL 107.64

Datum 105.00m

Chainage	0.00	3.34	4.15	5.42	6.26	7.27
Elevation	107.67	108.05	107.28	107.49	107.87	107.91

Section 118
Scale 1:100

DOWNSTREAM VIEW

SL 106.85

Datum 105.00m

Chainage	0.00	3.58	4.42	6.56	7.62	10.44
Elevation	107.54	107.03	106.66	106.77	107.10	107.07

Section 119
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

Datum 105.00m

Chainage	0.00	2.00	5.36	8.00	10.65	11.91	12.47	13.82	16.00	18.00	20.00	22.00	24.90
Elevation	106.61	106.57	106.50	106.45	106.29	105.55	105.58	106.40	106.41	106.42	106.42	106.43	106.44

Section 120
Scale 1:100

DOWNSTREAM VIEW

NOTE:
NOT SURVEYED APPROX LEVEL AND SIZE

CONCRETE HEADWALL
TOP 108.58

IL 107.02
PIPE 450ø
WL 107.12
26/04/15

Datum 105.00m

Chainage	0.00	2.00	4.39	7.79	8.74	9.44	12.00	14.60	16.36
Elevation	108.71	108.61	108.50	108.46	107.06	107.06	108.24	108.36	108.50

Section 121
Scale 1:100

UPSTREAM VIEW

NOTE:
NOT SURVEYED APPROX LEVEL AND SIZE

BRICK HEADWALL
TOP 108.55

SOFFIT 107.52
PIPE 550ø
WL 107.20
26/04/15

Datum 105.00m

Chainage	0.00	2.00	4.00	7.22	7.32	7.22	11.42	14.63
Elevation	108.81	108.88	108.86	108.87	107.15	107.15	108.76	109.00

Section 122
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

Datum 105.00m

Chainage	0.00	3.42	6.60	8.75	10.41	10.96	12.84	14.00	16.00	18.00	20.00	22.19
Elevation	109.58	109.50	109.47	109.43	107.92	107.97	109.13	109.17	109.25	109.32	109.39	109.47

Section 123
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

Datum 105.00m

Chainage	0.00	2.00	5.25	8.00	10.72	12.13	12.45	14.24	16.00	18.00	20.00	22.00	23.85
Elevation	110.41	110.44	110.50	110.54	110.58	109.66	109.66	110.83	110.84	110.84	110.85	110.85	110.86

Section 124
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

Datum 110.00m

Chainage	0.00	2.00	4.00	6.00	8.00	10.63	11.48	12.44	13.50	16.00	18.00	20.00	22.00	24.00	25.40
Elevation	111.83	111.83	111.87	111.76	111.74	111.78	110.90	110.90	111.94	111.92	111.90	111.88	111.86	111.84	111.82

Section 125
Scale 1:100

DOWNSTREAM VIEW

HEDGE HT 1.5m

Datum 110.00m

Chainage	0.00	2.00	4.00	6.00	7.27	8.46	8.93	10.34	12.00	14.00	16.00	18.00	20.38
Elevation	113.44	113.48	113.73	113.77	113.80	112.85	112.85	113.88	113.84	113.78	113.73	113.67	113.61

Revision	Description	Surv. by	Appr. by	Date
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1	Topographical area increased and Sections added.	SL/SJF	RPE	March 2015

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Oxford
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West Midlands
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enquiries@mksurveys.co.uk
oxford@mksurveys.co.uk
eastmidlands@mksurveys.co.uk
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Sections

Scale	Sheet Size:	Sheet Number:	Date:
1:100	A0	9	March 2015
Project Number:	Rev:	Surveyed By:	Approved By:
20553	4	SCJ	HAC

Annex EDP 3
Tree Survey Key and Schedule EDP 1

Sequential Reference Number	T - Individual specimen; G - Group, Trees that form cohesive arboricultural features either aerodynamically, visually or culturally; H - Linear group of specimens that form a hedge or boundary; and W - A larger group or area of trees that should be regarded as a single woodland unit
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Branch Spread	This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on **Annex EDP 1**.
Existing Height Above Ground Level	An approximation of height (in metres) of crown clearance above adjacent ground level.
Life Stage	There are six classes to which trees are assigned: Young; Semi Mature; Early Mature; Mature; Over Mature; and Veteran.
Physiological Condition	An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.
Structural Condition	Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect[4]".
Preliminary Management Recommendations	These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule**.**

[1] BS 5837:2012 Section 4.4.2.5

Estimated Remaining Contribution	The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.
Category Grading	Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in *BS 5837:2012*.
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Client: DB Symmetry Ltd

Site: Rugby South (Cawston Spinney Woodland)

Date of Survey: 12 & 17 July 2018

Consultant Robert Crussell

Tagged N/A

Weather Bright and Clear

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Recommendations	Estimated Remaining Contribution (Years)	Category Grading	Priority
				North	East	South	West									
G1	Sycamore (Acer pseudoplatanus);Common ash (Fraxinus excelsior);Blackthorn (Prunus spinosa);Goat willow (Salix caprea);Elder (Sambucus nigra)	4	100	1	1	1	1	0	Early Mature	Fair	Fair	Self seeded/neglected area	No Work Recommended	<10	U	N/A
G2	Beech (Fagus sylvatica)	24	100	2	2	2	2	0	Mature	Fair	Fair	Boundary group with dense cohesive canopies	No Work Recommended	20+	B2	N/A
T3	Common ash (Fraxinus excelsior)	18	630	6	6	6	6	0	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T4	Common ash (Fraxinus excelsior)	18	450	7	3	3	6	0	Mature	Fair	Fair	Ivy or climbing plant; Asymetric/leaning	No Work Recommended	10+	C1	N/A
G5	Common ash (Fraxinus excelsior)	19	370	2	2	2	2	0	Mature	Fair	Fair	Ivy or climbing plant; Boundary group. Little age diversity.	No Work Recommended	20+	B2	N/A
T6	Sycamore (Acer pseudoplatanus)	18	240	6	6	6	6	1	Mature	Fair	Fair	Ivy or climbing plant;Stems - Co-dominant; Cavity at base with intact heartwood.	No Work Recommended	20+	B1;2	N/A
T7	Sycamore (Acer pseudoplatanus)	18	420	4	4	4	2	1	Mature	Fair	Poor	Epicormic growth - Bole / principal stems; Multiple cavities indicate tree is hollow to approx 1.5m.	No Work Recommended	10+	C1	N/A
T8	Sycamore (Acer pseudoplatanus)	18	90#	7	4	4	7	1	Mature	Fair	Fair	Old coppice stool. Cavity with intact heartwood on subdominant stem overhanging boundary.	No Work Recommended	20+	B1	N/A
T9	Sycamore (Acer pseudoplatanus)	18	320	4	4	4	4	1	Mature	Fair	Poor	Advanced white rot is rapidly hollowing stem.	No Work Recommended	<10	U	N/A
T10	Sycamore (Acer pseudoplatanus)	18	510	8	8	4	4	1	Mature	Fair	Fair	Phototropic growth/asymetrical crown	No Work Recommended	20+	B1	N/A
T11	Sycamore (Acer pseudoplatanus)	18	120	8	4	5	8	1	Mature	Fair	Fair	Old coppice	No Work Recommended	20+	B1	N/A
T12	Sycamore (Acer pseudoplatanus)	18	500	7	4	6	6	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
G13	Common ash (Fraxinus excelsior)	18	400	2	2	2	2	0	Mature	Fair	Fair	Ivy or climbing plant; Boundary group. Little age diversity.	No Work Recommended	20+	B2	N/A
T14	Common ash (Fraxinus excelsior)	21	520	9	9	9	9	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	40+	A1	N/A
T15	European Larch (Larix decidua)	18	380#	5	5	5	5	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
T16	Sycamore (Acer pseudoplatanus)	20	710	9	8	5	6	1	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Major	No Work Recommended	20+	B1	N/A
T17	Sycamore (Acer pseudoplatanus)	20	540	8	4	5	7	1	Mature	Fair	Fair	Ivy or climbing plant;Epicormic growth - Bole / principal stems	No Work Recommended	20+	B1	N/A
T18	Sycamore (Acer pseudoplatanus)	20	490	9	6	5	8	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	10+	C1	N/A
T19	Sycamore (Acer pseudoplatanus)	20	610	7	7	5	7	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T20	Silver birch (Betula pendula)	20	610	2	0	2	4	1	Over Mature	Fair	Fair	Ivy or climbing plant; Pronounced ribbing on stem.	No Work Recommended	10+	C1	N/A
T21	Common ash (Fraxinus excelsior)	20	180	8	5	2	5	1	Mature	Fair	Fair	Branch failure at 8m north. Codominant. 3 stems, but 1 is dead and decaying and has not been included for the sake of RPA calculations.	No Work Recommended	10+	C1	N/A
T22	Common ash (Fraxinus excelsior)	20	530	6	6	6	6	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T23	Common hazel (Corylus avellana)	8	530#	4	4	4	4	1	Over Mature	Fair	Fair	Old stored coppice.	No Work Recommended	10+	C1	N/A
G24	Spruce sp. (Picea sp.)	14	280#	2	2	2	2	0	Mature	Fair	Fair	Storm damage over boundary.	No Work Recommended	10+	C2	N/A
T25	Common ash (Fraxinus excelsior)	20	730	7	7	5	7	1	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T26	Poplar sp. (Populus sp.)	18	600#	6	6	6	6	1	Over Mature	Fair	Fair	Phoenix tree. Historicall tree has fallen over continued growing.	No Work Recommended	20+	B1	N/A
G27	Goat willow (Salix caprea)	18	650#	2	2	2	2	0	Over Mature	Fair	Poor	Group of over-mature wilows. Multiple failures throughout.	No Work Recommended	<10	U	N/A

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Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Recommendations	Estimated Remaining Contribution (Years)	Category Grading	Priority
				North	East	South	West									
T28	Goat willow (Salix caprea)	18	850	10	6	0	6	1	Over Mature	Fair	Poor	Deadwood - Major; Leaning stem.	No Work Recommended	<10	U	N/A
T29	Goat willow (Salix caprea)	18	1090	9	9	9	9	1	Over Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Major	No Work Recommended	10+	C1	N/A
G30	Common hawthorn (Crataegus monogyna);Common ash (Fraxinus excelsior);Goat willow (Salix caprea)	14	280#	2	2	2	2	0	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C2	N/A
T31	Common ash (Fraxinus excelsior)	18	110#	8	8	8	8	1	Mature	Fair	Fair	Ivy or climbing plant; Multistemmed at base.	No Work Recommended	20+	B1	N/A
T32	Crack willow (Salix fragilis)	20	820	10	8	3	8	1	Over Mature	Fair	Fair	Weak fork / branch union with included bark; Leaning/asymetric.	Reduce crown by 4m if development proceeds.	20+	B1	N/A
T33	Common ash (Fraxinus excelsior)	20	470	7	6	4	6	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T34	Common ash (Fraxinus excelsior)	19	640	6	5	4	5	1	Mature	Fair	Fair	Ivy or climbing plant;Weak fork / branch union with included bark; Deadwood - Minor; Early signs of dieback.	No Work Recommended	10+	C1	N/A
G35	Common ash (Fraxinus excelsior)	16	300#	2	2	2	2	0	Mature	Fair	Fair	Dense group of ash.	No Work Recommended	20+	B2	N/A
T36	Crack willow (Salix fragilis)	19	630	8	6	6	6	1	Mature	Fair	Fair	Decay seam at 4m south.	No Work Recommended	20+	B1	N/A
T37	Crack willow (Salix fragilis)	19	960	9	9	9	9	1	Ancient	Fair	Poor	Multiple failures throughout.	No Work Recommended	<10	U	N/A
T38	Crack willow (Salix fragilis)	19	960	9	9	9	9	1	Ancient	Fair	Fair	Retrenching.	No Work Recommended	10+	C1	N/A
T39	Common ash (Fraxinus excelsior)	18	600#	6	6	6	6	1	Mature	Poor	Fair	Access to inspect base - Restricted / obscured; Sparse crown.	No Work Recommended	10+	C1	N/A
T40	Lombardy Poplar (Populus nigra 'Italica')	24	700	3	3	3	3	1	Mature	Fair	Fair	Woodpecker hole at 6m south.	No Work Recommended	20+	B1	N/A
T41	Lombardy Poplar (Populus nigra 'Italica')	24	720	3	3	3	3	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
T42	Lombardy Poplar (Populus nigra 'Italica')	24	270	3	3	3	3	1	Mature	Fair	Fair	Weak fork / branch union with included bark	Consider 4T cable bracing if development proceeds.	20+	B1	N/A
T43	Poplar sp. (Populus sp.)	24	1020	8	8	8	8	1	Over Mature	Fair	Fair	Powerlines through tree.	No Work Recommended	20+	B1	N/A
T44	Poplar sp. (Populus sp.)	24	720	7	7	7	7	1	Over Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T45	Poplar sp. (Populus sp.)	24	690	5	5	5	5	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
T46	English oak (Quercus robur)	20	700#	5	6	6	6	1	Mature	Fair	Fair	Access to inspect base - Not possible; Stream to north and west.	No Work Recommended	20+	B1	N/A
T47	Hornbeam (Carpinus betulus)	18	600#	6	6	6	6	1	Mature	Fair	Fair	Access to inspect base - Not possible; Stream to west.	No Work Recommended	20+	B1	N/A
T48	Common ash (Fraxinus excelsior)	18	480#	5	5	5	5	1	Mature	Fair	Fair	Access to inspect base - Not possible; Stream to west. Sparse crown.	No Work Recommended	10+	C1	N/A
G49	Common ash (Fraxinus excelsior)	20	450#	2	2	2	2	0	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Stream to west.	No Work Recommended	20+	B2	N/A
T50	Common alder (Alnus glutinosa)	18	420#	5	5	5	5	1	Mature	Fair	Fair	Stream to west. Multistemmed at ground level. Multiple burrs.	No Work Recommended	20+	B1	N/A
G51	English oak (Quercus robur)	20	680#	2	2	2	2	0	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Major; Stream to west.	No Work Recommended	20+	B2	N/A
G52	Common ash (Fraxinus excelsior)	20	370#	2	2	2	2	0	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Stream to west.	No Work Recommended	10+	C2	N/A
G53	Common ash (Fraxinus excelsior)	20	520	2	2	2	2	0	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor; Stream to west.	No Work Recommended	20+	B2	N/A
T54	Elm sp. (Ulmus sp.)	14	370	6	6	6	6	1	Mature	Fair	Fair	Stream to east.	No Work Recommended	20+	B1	N/A
G55	Common ash (Fraxinus excelsior);Elm sp. (Ulmus sp.)	12	260#	2	2	2	2	0	Early Mature	Fair	Fair	Access to inspect base - Not possible; Stream to west.	No Work Recommended	10+	C2	N/A
T56	English oak (Quercus robur)	22	900#	9	9	9	9	1	Over Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Deadwood - Major; Stream to east.	No Work Recommended	20+	B1	N/A
T57	Common ash (Fraxinus excelsior)	17	900#	8	8	8	8	1	Over Mature	Poor	Poor	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Deadwood - Major; Stream to east. Inontus suspected. Advanced retrenchment.	No Work Recommended	10+	C1	N/A
T58	Poplar sp. (Populus sp.)	23	610	5	5	5	5	1	Mature	Fair	Fair	Epicormic growth - Base / bole / principal stems	No Work Recommended	20+	B1	N/A

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T59	Common ash (Fraxinus excelsior)	18	150	5	5	5	5	1	Mature	Fair	Fair	Multistemmed at base. Possibly coppiced historically.	No Work Recommended	10+	C1	N/A
T60	Large leaved lime (Tilia platyphyllos)	18	310	7	7	7	7	1	Mature	Fair	Fair	Weak fork / branch union with included bark; Growing into power lines.	No Work Recommended	10+	C1	N/A
T61	Small leaved lime (Tilia cordata)	16	430	7	7	7	7	1	Mature	Fair	Fair	Growing into power lines.	No Work Recommended	10+	C1	N/A
T62	Poplar sp. (Populus sp.)	24	720	5	5	5	5	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	20+	B1	N/A
T63	Silver birch (Betula pendula)	10	280	3	3	3	3	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	10+	C1	N/A
T64	Silver birch (Betula pendula)	10	320	3	3	3	3	1	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	N/A
T65	Small leaved lime (Tilia cordata)	16	370	5	5	5	5	1	Mature	Fair	Fair	Ivy or climbing plant	No Work Recommended	10+	C1	N/A
T66	Common ash (Fraxinus excelsior)	16	60	5	5	5	5	1	Mature	Fair	Fair	Ivy or climbing plant; Multistemed at base. Possibly old coppice.	No Work Recommended	10+	C1	N/A
T67	Elder (Sambucus nigra)	4	100#	2	2	2	2	1	Early Mature	Fair	Fair	Self seeded.	No Work Recommended	<10	U	N/A
T68	Common ash (Fraxinus excelsior)	10	90#	2	4	4	2	2	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Vegetation at base.	No Work Recommended	10+	C1	N/A
G69	Common ash (Fraxinus excelsior);Common holly (Ilex aquifolium);Elm sp. (Ulmus sp.)	8	200#	2	2	2	2	0	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured	No Work Recommended	10+	C2	N/A
T70	Common ash (Fraxinus excelsior)	14	150#	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Screen of hawthorn restricts access to base.	No Work Recommended	20+	B1	N/A
T71	Common ash (Fraxinus excelsior)	14	350#	2	5	5	2	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Screen of hawthorn restricts access to base.	No Work Recommended	20+	B1	N/A
T72	Common ash (Fraxinus excelsior)	12	350#	2	4	5	4	3	Early Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Screen of hawthorn restricts access to base.	No Work Recommended	10+	C1	N/A
T73	Common ash (Fraxinus excelsior)	20	600#	7	7	7	7	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Screen of hawthorn restricts access to base.	No Work Recommended	20+	B1	3
T74	Common ash (Fraxinus excelsior)	16	350#	2	3	5	3	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Screen of hawthorn restricts access to base.	No Work Recommended	10+	C1	N/A
T75	Common ash (Fraxinus excelsior)	16	350#	2	5	5	3	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Screen of hawthorn restricts access to base.	No Work Recommended	10+	C1	N/A
T76	Common ash (Fraxinus excelsior)	16	500#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Screen of hawthorn restricts access to base.	No Work Recommended	10+	C1	N/A
T77	Common ash (Fraxinus excelsior)	16	160	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant	No Work Recommended	10+	C1	N/A
T78	Common ash (Fraxinus excelsior)	16	420	2	5	5	2	3	Mature	Poor	Poor	Ivy or climbing plant; Leaning over field. Smothered in ivy and large limb from adjacent tree has failed into canopy.	No Work Recommended	<10	U	N/A
T79	Common ash (Fraxinus excelsior)	16	580	5	5	5	5	3	Over Mature	Poor	Poor	Top has failed historically. Large sub dominant limb has failed and is resting in canopy of adjacent tree.	No Work Recommended	<10	U	N/A
T80	Wych elm (Ulmus glabra)	15	400	4	5	4	2	3	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Vegetation around base. Phototropic growth causing lean over field.	No Work Recommended	10+	C1	N/A
T81	Common ash (Fraxinus excelsior)	19	460	4	5	4	2	3	Mature	Fair	Fair	Phototropic growth causing lean over field.	No Work Recommended	10+	C1	N/A
T82	Sycamore (Acer pseudoplatanus)	18	520	7	6	3	6	3	Mature	Fair	Fair	Ivy or climbing plant; Crown supressed by adjacent tree.	No Work Recommended	10+	C1	N/A
T83	Sycamore (Acer pseudoplatanus)	20	520	6	6	6	6	1	Mature	Fair	Fair	Ivy or climbing plant; Smothered in ivy.	No Work Recommended	10+	C1	N/A
T84	Common ash (Fraxinus excelsior)	21	540	6	8	6	6	1	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T85	Common ash (Fraxinus excelsior)	14	540#	6	8	3	3	1	Mature	Poor	Poor	Access to inspect base - Restricted / obscured; Leaning over field, smothered in ivy.	No Work Recommended	<10	U	N/A
T86	Common ash (Fraxinus excelsior)	16	580	3	8	6	6	5	Mature	Fair	Fair	Ivy or climbing plant; Top has failed leaving crown asymmetrical.	No Work Recommended	10+	C1	N/A
T87	Common ash (Fraxinus excelsior)	20	600#	7	7	7	7	5	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T88	Common ash (Fraxinus excelsior)	20	550#	5	7	9	7	5	Mature	Poor	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Sparse crown. Vegetation around base.	No Work Recommended	10+	C1	N/A

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T89	Common ash (Fraxinus excelsior)	15	350#	2	5	7	5	5	Mature	Poor	Poor	Access to inspect base - Not possible; Vegetation around base. Severe lean over field. Open cavity at 2.5m.	No Work Recommended	<10	U	N/A
T90	Common ash (Fraxinus excelsior)	15	450#	2	5	7	5	5	Mature	Poor	Poor	Access to inspect base - Not possible; Ivy or climbing plant; Vegetation around base. Severe lean over field.	No Work Recommended	<10	U	N/A
T91	Sycamore (Acer pseudoplatanus)	15	450#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Vegetation around base.	No Work Recommended	20+	B1	N/A
T92	Sycamore (Acer pseudoplatanus)	15	450#	5	6	8	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Asymmetrical crown.	No Work Recommended	20+	B1	N/A
T93	Common ash (Fraxinus excelsior)	15	350#	5	7	5	2	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Phototropic lean to east.	No Work Recommended	10+	C1	N/A
T94	Sycamore (Acer pseudoplatanus)	13	350#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Screen of hawthorn restricts access to base.	No Work Recommended	20+	B1	N/A
T95	Sycamore (Acer pseudoplatanus)	15	450#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major; Screen of hawthorn restricts access to base.	No Work Recommended	20+	B1	N/A
T96	Sycamore (Acer pseudoplatanus)	15	450#	4	6	6	4	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Prototropic growth has caused asymetry in crown.	No Work Recommended	20+	B1	N/A
T97	Sycamore (Acer pseudoplatanus)	15	350#	6	4	4	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Prototropic lean to west.	No Work Recommended	10+	C1	N/A
T98	Sycamore (Acer pseudoplatanus)	15	350#	5	3	3	5	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Suppressed crown.	No Work Recommended	10+	C1	N/A
T99	Common ash (Fraxinus excelsior)	18	500#	4	8	8	4	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor; Asymetric in crown due to competition for light with adjacent tree.	No Work Recommended	20+	B1	N/A
G100	Sycamore (Acer pseudoplatanus);Common ash (Fraxinus excelsior)	17	350#	2	2	2	2	0	Mature	Fair	Fair	Access to inspect base - Restricted / obscured; Ivy or climbing plant; Crowns sparse in places. Hawthorn screen restricts access to base.	No Work Recommended	20+	B2	N/A
T101	Common ash (Fraxinus excelsior)	20	550#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Deadwood - Major; Growing out of holly.	No Work Recommended	20+	B1	N/A
T102	English oak (Quercus robur)	18	400#	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major	No Work Recommended	10+	C1	N/A
T103	English oak (Quercus robur)	18	600#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major	No Work Recommended	20+	B1	N/A
T104	English oak (Quercus robur)	14	450#	4	6	4	8	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Top has failed leaving asymetric crown.	No Work Recommended	10+	C1	N/A
T105	Common ash (Fraxinus excelsior)	19	450#	6	6	6	6	3	Mature	Poor	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major; Sparse crown.	No Work Recommended	10+	C1	N/A
T106	Common ash (Fraxinus excelsior)	19	450#	6	6	6	6	3	Mature	Poor	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Sparse crown.	No Work Recommended	10+	C1	N/A
T107	Common ash (Fraxinus excelsior)	19	450#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T108	English oak (Quercus robur)	16	550#	4	8	8	4	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major; Phototrpic growth causing asymetry in crown.	No Work Recommended	20+	B1	N/A
T109	Common ash (Fraxinus excelsior)	16	550#	2	6	8	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Major; Phototrpic growth causing asymetry in crown.	No Work Recommended	20+	B1	N/A
T110	Common ash (Fraxinus excelsior)	19	550#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T111	Common ash (Fraxinus excelsior)	19	550#	7	7	7	7	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T112	Hornbeam (Carpinus betulus)	16	400#	6	6	6	6	3	Mature	Fair	Fair	Access to inspect base - Not possible	No Work Recommended	20+	B1	N/A
T113	English oak (Quercus robur)	19	580#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible; Deadwood - Major;Epicormic growth - Crown	No Work Recommended	20+	B1	N/A
T114	Hornbeam (Carpinus betulus)	19	400#	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Not possible; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T115	Hornbeam (Carpinus betulus)	19	480#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible	No Work Recommended	20+	B1	N/A
T116	Sycamore (Acer pseudoplatanus)	19	400#	3	4	6	4	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Phototropic asymetry.	No Work Recommended	20+	B1	N/A
T117	Common ash (Fraxinus excelsior)	19	550#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible	No Work Recommended	20+	B1	N/A

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T118	Sycamore (Acer pseudoplatanus)	14	380#	7	7	7	7	3	Mature	Fair	Fair	Access to inspect base - Not possible	No Work Recommended	10+	C1	N/A
T119	Common ash (Fraxinus excelsior)	16	400#	5	6	7	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Flail damage to stem. Stem has self correcting lean.	No Work Recommended	20+	B1	N/A
T120	Sycamore (Acer pseudoplatanus)	12	380	3	3	7	5	3	Mature	Fair	Poor	Hollow. Open cavity at base. Phototropic lean.	No Work Recommended	<10	U	N/A
T121	Hornbeam (Carpinus betulus)	16	450	5	5	5	5	3	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
T122	Sycamore (Acer pseudoplatanus)	14	400	3	4	6	4	3	Mature	Fair	Fair	Ivy or climbing plant; Phototrpic lean.	No Work Recommended	20+	B1	N/A
T123	Hornbeam (Carpinus betulus)	17	600	6	6	6	6	3	Mature	Fair	Fair	Exudation at 1m. Cracks of decay/dysfunction at buttress level on SE side. Locally extensive but appears superficial.	No Work Recommended	20+	B1	N/A
T124	Sycamore (Acer pseudoplatanus)	17	450	4	5	7	5	3	Mature	Fair	Fair	Ivy or climbing plant; Smothered in ivy. Phototrpic lean (minor).	No Work Recommended	10+	C1	N/A
T125	Common ash (Fraxinus excelsior)	18	680	7	7	7	7	3	Mature	Fair	Fair	Ivy or climbing plant; Bifurcation at 3m.	No Work Recommended	20+	B1	N/A
T126	Sycamore (Acer pseudoplatanus)	16	530	5	7	7	5	3	Mature	Fair	Fair	Asymetrical crown.	No Work Recommended	20+	B1	N/A
T127	Sycamore (Acer pseudoplatanus)	14	490	3	7	7	3	3	Mature	Fair	Fair	Phototropic lean.	No Work Recommended	20+	B1	N/A
T128	English oak (Quercus robur)	18	510	3	9	5	1	3	Mature	Fair	Fair	Deadwood - Major; Phototropic lean.	No Work Recommended	20+	B1	N/A
T129	Hornbeam (Carpinus betulus)	18	540#	0	0	12	12	3	Mature	Fair	Poor	Historic root heave. Tree has re-stabilised but buttress under tension has a crack in it.	No Work Recommended	<10	U	N/A
T130	Common ash (Fraxinus excelsior)	18	380	5	5	5	5	3	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	N/A
T131	Common ash (Fraxinus excelsior)	17	420#	5	5	5	5	3	Mature	Poor	Fair	Access to inspect base - Not possible; Deadwood - Major; Sparse crown.	No Work Recommended	10+	C1	N/A
T132	Common ash (Fraxinus excelsior)	17	500#	7	7	7	7	3	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Stem smothered in ivy.	No Work Recommended	20+	B1	N/A
T133	Beech (Fagus sylvatica)	14	400#	5	5	5	5	3	Mature	Fair	Fair	Access to inspect base - Not possible; Minor flail damage over field.	No Work Recommended	20+	B1	N/A
T134	Hornbeam (Carpinus betulus)	14	360#	3	5	7	5	3	Mature	Fair	Fair	Access to inspect base - Not possible; Phototropic lean. Sparse at top.	No Work Recommended	10+	C1	N/A
T135	Hornbeam (Carpinus betulus)	14	360#	4	4	4	4	3	Mature	Fair	Fair	Access to inspect base - Not possible	No Work Recommended	20+	B1	N/A
T136	English oak (Quercus robur)	18	450#	6	8	8	6	3	Mature	Fair	Fair	Access to inspect base - Not possible; Minor flail damage over field.	No Work Recommended	20+	B1	N/A
T137	Common ash (Fraxinus excelsior)	18	600#	8	8	8	8	3	Mature	Fair	Fair	Access to inspect base - Not possible; Deadwood - Major; Severe self-correcting lean. Large wound to limb over field.	No Work Recommended	20+	B1	N/A
G138	Common hazel (Corylus avellana);Common hawthorn (Crataegus monogyna);Common ash (Fraxinus excelsior);Elder (Sambucus nigra)	6	150#	2	2	2	2	0	Early Mature	Fair	Fair	Natural regen in clearing.	No Work Recommended	10+	C2	N/A
T139	Silver birch (Betula pendula)	18	450#	4	4	4	4	3	Over Mature	Poor	Fair	Access to inspect base - Not possible; Smothered in ivy.	No Work Recommended	<10	U	N/A
T140	Common hazel (Corylus avellana)	12	230	4	4	4	4	3	Mature	Fair	Fair	Hazel standard.	No Work Recommended	10+	C1	N/A
G141	Sycamore (Acer pseudoplatanus);Yew (Taxus baccata)	14	350	2	2	2	2	0	Mature	Fair	Fair	Yew growing up through adjacent sycamore.	No Work Recommended	10+	C2	N/A
T142	Sycamore (Acer pseudoplatanus)	14	270	4	4	4	4	3	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	N/A
T143	Sycamore (Acer pseudoplatanus)	14	270	4	4	4	4	3	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	N/A
T144	Sycamore (Acer pseudoplatanus)	20	100	8	8	8	8	3	Mature	Fair	Fair	Deadwood - Minor; Multistemmed at base - old coppice.	No Work Recommended	20+	B1	N/A
T145	Sycamore (Acer pseudoplatanus)	21	720	6	6	6	6	3	Mature	Fair	Fair	Deadwood - Major; Cup shaped union at 1m.	No Work Recommended	20+	B1	N/A

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T146	Scots pine (Pinus sylvestris)	21	440	3	3	3	3	3	Mature	Fair	Fair	Deadwood - Minor	No Work Recommended	10+	C1	N/A
T147	Scots pine (Pinus sylvestris)	21	440	3	3	3	3	3	Mature	Fair	Fair	Sparse crown.	No Work Recommended	10+	C1	N/A
T148	Scots pine (Pinus sylvestris)	21	440	3	3	3	3	3	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	N/A
T149	Scots pine (Pinus sylvestris)	21	440	3	3	3	3	3	Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	N/A
T150	Sycamore (Acer pseudoplatanus)	18	450	5	5	5	5	3	Early Mature	Fair	Fair	Self-correcting lean. Cavity at base on north sie of stem, between butresses.	No Work Recommended	10+	C1	N/A
T151	Sweet chestnut (Castanea sativa)	24	830	7	7	7	7	3	Mature	Fair	Fair	Epicormic growth - Bole / principal stems; Swelling around old attachment point at 3m north.	No Work Recommended	20+	B1	N/A
T152	Sweet chestnut (Castanea sativa)	23	470	5	5	5	5	3	Mature	Fair	Fair	Epicormic growth - Bole / principal stems; Deadwood - Minor	No Work Recommended	20+	B1	N/A
T153	Sweet chestnut (Castanea sativa)	23	800	6	8	6	6	3	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Major; Failure on limb at 10m east.	No Work Recommended	20+	B1	N/A
T154	Beech (Fagus sylvatica)	23	670	6	8	6	6	3	Mature	Fair	Fair	Ivy or climbing plant; Multiple inclusions at 1m where stems have fused.	No Work Recommended	20+	B1	N/A
T155	Beech (Fagus sylvatica)	23	660	6	8	6	6	3	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor; Overhangs road and utility lines.	No Work Recommended	20+	B1	N/A
T156	Beech (Fagus sylvatica)	24	940	8	9	8	8	3	Over Mature	Fair	Fair	Ivy or climbing plant;Weak fork / branch union with included bark; Deadwood - Minor; Small open cavity at 0.5m. Multiple incidences of included bark on stem.	No Work Recommended	40+	A1	N/A
T157	Scots pine (Pinus sylvestris)	22	440	4	4	4	4	3	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor; Sparse crown.	No Work Recommended	10+	C1	N/A
T158	Sycamore (Acer pseudoplatanus)	19	960	9	9	9	9	3	Over Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor; Multistemmed at 0.5m. Old coppice.	No Work Recommended	20+	B1	N/A
T159	Hornbeam (Carpinus betulus)	15	800	4	8	4	1	3	Over Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor; Phototropic growth. overhangs road.	No Work Recommended	10+	C1	N/A
T160	Lime sp. (Tilia sp.)	23	800#	7	7	7	7	0	Mature	Fair	Fair	Epicormic growth - Base / bole / principal stems; Dense epicormic growth at base.	No Work Recommended	20+	B1	N/A
T161	Common ash (Fraxinus excelsior)	21	430#	5	7	5	1	0	Mature	Poor	Fair	Access to inspect base - Not possible; Deadwood - Major; Growing on bank of stream beneath road. Stream to north. Sparse crown. Pseudomonas stanislavoi - bacterial canker of ash. Phototropic lean.	No Work Recommended	10+	C1	N/A
G162	Common ash (Fraxinus excelsior)	22	350#	2	2	2	2	0	Mature	Fair	Fair	Ivy or climbing plant; Deadwood - Minor; Yew growing up through adjacent sycamore.	No Work Recommended	10+	C2	N/A
T163	Poplar sp. (Populus sp.)	24	930#	6	9	6	4	0	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant; Vegetation around base.	No Work Recommended	20+	B1	N/A
T164	Beech (Fagus sylvatica)	20	600#	7	7	7	7	0	Mature	Fair	Fair	Access to inspect base - Not possible; Ivy or climbing plant	No Work Recommended	20+	B1	N/A

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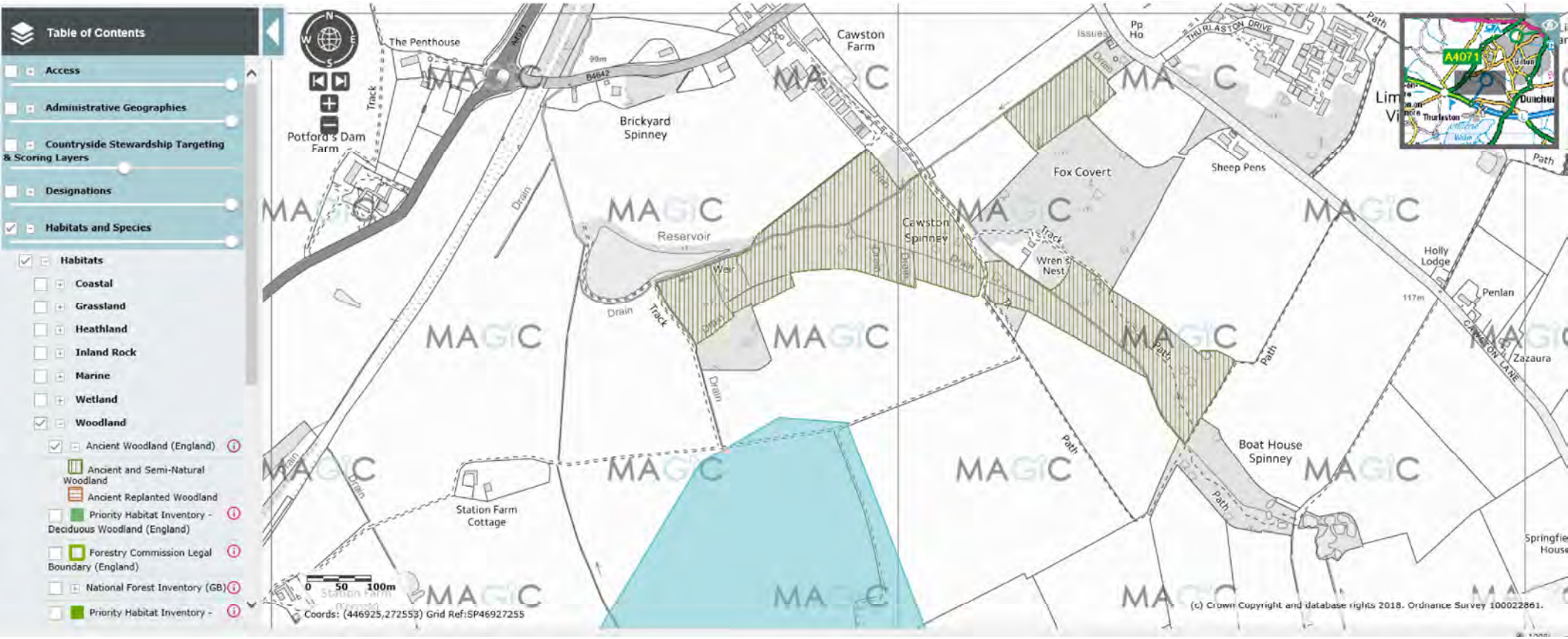
Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012

Tree Works Priority Codes -Priority codes from 1 to 3 have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Annex EDP 4
Ancient Woodland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Priority Habitat Inventory - Deciduous Woodland (England)
Forestry Commission Legal Boundary (England)
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Priority Habitat Inventory -
The Penthouse
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Brickyard Spinney
Cawston Farm
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Wren's Nest
Holly Lodge
Penlan
Zazaura
Boat House Spinney
Station Farm Cottage
Path
THURLASTON DRIVE
CAWSTON LANE
0 50 100m
Coords: (446925,272553) Grid Ref:SP46927255
(c) Crown Copyright and database rights 2018. Ordnance Survey 100022861.

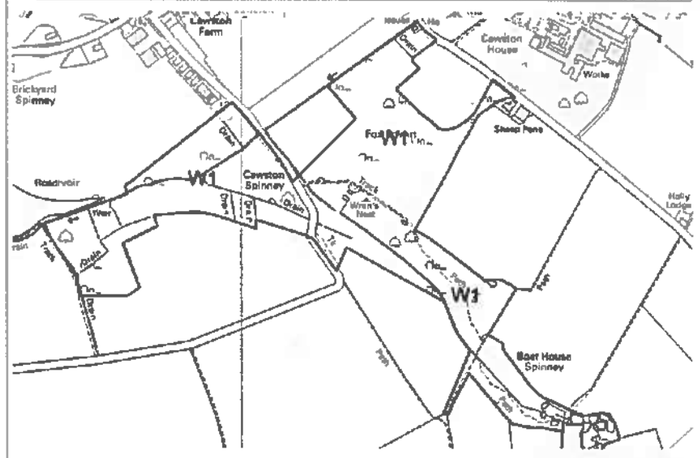
Annex EDP 5
Tree Preservation Order

Scale

1:5000

North

Location Plan **Scale 1:10,000**



TREE PRESERVATION ORDER

Number T. R.	Date
TR4.55	10/10/2005

Location Cawston Woods
Dunchurch, Rugby

W1 - Mixed species consisting of :-

Ash, Sycamore, Beech, Oak, Larch, Silver Birch

Spruce, Yew, Holly, Pine, Hazel, Hawthorn elm

PLANNING SERVICES

TECHNICAL SERVICES DEPARTMENT
Town Hall, Rugby. CV21 2RS
John Ware, B.A., M.C.D., Dip. L.A., Head of Planning Services
Tel.No. (01788) 533533
Fax.No.(01788) 533778

BOROUGH RUGBY COUNCIL

Town and Country Planning Acts 1971 - 1974

Insert title of Order.

CAWSTON WOODS

TREE PRESERVATION ORDER, 1980.

Insert name of local planning authority.

THE RUGBY BOROUGH COUNCIL

in this order called " the authority " in pursuance of the powers conferred in that behalf by Section 60 [and 61*] of the Town and Country Planning Act 1971 (as amended by Section 10 (1) of the Town and Country Amenities Act 1974), and subject to the provisions of the Forestry Act 1967, hereby make the following Order:—

1. In this Order:—
" the Act " means the Town and Country Planning Act 1971;
" owner " means the owner in fee simple, either in possession or who has granted a lease or tenancy of which the unexpired portion is less than three years; lessee (including a sub-lessee) or tenant in possession, the unexpired portion of whose lease or tenancy is three years or more and a mortgagee in possession; and
" the Secretary of State " means the [Secretary of State for the Environment] [~~Secretary of State for Wales~~].

2.—Subject to the provisions of this Order and to the exemptions specified in the Second Schedule hereto, no person shall, except with the consent of the authority and in accordance with the conditions, if any, imposed on such consent, cut down, top, lop, uproot, wilfully damage or wilfully destroy or cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of any tree specified in the First Schedule hereto or comprised in a group of trees or in a woodland therein specified, the position of which trees, groups of trees and woodlands is defined in the manner indicated in the said First Schedule on the map annexed hereto‡ which map shall, for the purpose of such definition as aforesaid, prevail where any ambiguity arises between it and the specification in the said First Schedule.

3.—An application for consent made to the authority† under Article 2 of this Order shall be in writing stating the reasons for making the application, and shall by reference if necessary to a plan specify the trees to which the application relates, and the operations for the carrying out of which consent is required.

4.—(1) Where an application for consent is made to the authority under this Order, the authority may grant such consent either unconditionally, or subject to such conditions (including conditions requiring the replacement of any tree by one or more trees on the site or in the immediate vicinity thereof), as the authority may think fit, or may refuse consent.

Provided that where the application relates to any woodland specified in the First Schedule to this Order the authority shall grant consent so far as accords with the principles of good forestry, except where, in the opinion of the authority, it is necessary in the interests of amenity to maintain the special character of the woodland or the woodland character of the area, and shall not impose conditions on such consent requiring replacement or replanting.

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* Include only where Order contains a direction under section 61 of the Act.

‡ Map to be to a scale of not less than 25 inches to one mile (1:2500), except in the case of large woodlands when the scale shall be 6 inches to one mile (1:10000 or 1:10560).

† NOTE.—If it is desired to *fell* any of the trees included in this Order whether included as trees, groups of trees or woodlands and the trees are trees for the felling of which a licence is required under the Forestry Act, 1967, application should be made *not* to the authority for consent under this Order but to the Conservator of Forests for a licence under that Act (section 15 (5)).

(2) The authority shall keep a register of all applications for consent under this Order containing information as to the nature of the application, the decision of the authority thereon, any compensation awarded in consequence of such decision and any directions as to replanting of woodlands; and every such register shall be available for inspection by the public at all reasonable hours.

5.—Where the authority refuse consent under this Order or grant such consent subject to conditions they may when refusing or granting consent certify in respect of any trees for which they are so refusing or granting consent that they are satisfied—

(*a*) that the refusal or condition is in the interests of good forestry; or

(*b*) in the case of trees other than trees comprised in woodlands, that the trees have an outstanding or special amenity value.

6.—(1) Where consent is granted under this Order to fell any part of a woodland other than consent for silvicultural thinning then unless—

(*a*) such consent is granted for the purpose of enabling development to be carried out in accordance with a permission to develop land under Part III of the Act, or

(*b*) the authority with the approval of the Secretary of State dispense with replanting,

the authority shall give to the owner of the land on which that part of the woodland is situated a direction in writing specifying the manner in which and the time within which he shall replant such land and where such a direction is given and the part is felled the owner shall, subject to the provision of this Order and section 175 of the Act, replant the said land in accordance with the direction.

(2) Any direction given under paragraph (1) of this Article may include requirements as to—

(*a*) species;

(*b*) number of trees per acre (hectare);

(*c*) the erection and maintenance of fencing necessary for protection of the replanting;

(*d*) the preparation of ground, draining, removal of brushwood, lop and top; and

(*e*) protective measures against fire.

7.—On imposing any condition requiring the replacement of any tree under Article 4 of the Order, or on giving a direction under Article 6 of this Order with respect to the replanting of woodlands, the authority shall if such condition or direction relates to land in respect of which byelaws made by a water authority since 31st March 1974, by any other authority (whose functions are now exercised by a water authority) who at any time prior to 1st April 1974 exercised the functions in respect of which the byelaw was made, by a drainage board, or by the Greater London Council in the exercise of its functions in relation to maintenance, improvement or construction of watercourses or of drainage works, restrict or regulate the planting of trees, notify the applicant or the owner of the land, as the case may be, of the existence of such byelaws and that any such condition or direction has effect subject to the requirements of the water authority, the drainage board, or the Greater London Council under those byelaws and the condition or direction shall have effect accordingly.

8.—The provisions set out in the Third Schedule to this Order, being provisions of Part III of the Act adapted and modified for the purposes of this Order, shall apply in relation thereto.

9.—Subject to the provisions of this Order, any person who has suffered loss or damage in consequence of any refusal (including revocation or modification) of consent under this Order or of any grant of any such consent subject to conditions, shall, if he makes a claim on the authority within the time and in the manner prescribed by this Order, be entitled to recover from the authority compensation in respect of such loss or damage:

Provided that no compensation shall be payable in respect of loss or damage suffere by reason of such refusal or grant of consent in the case of any trees the subject of a certificat in accordance with Article 5 of this Order.

10.—In assessing compensation payable under the last preceding Article account shal be taken of:

(*a*) any compensation or contribution which has been paid whether to the claiman or any other person, in respect of the same trees under the terms of this or an other Tree Preservation Order under Section 60 of the Act, or under the term of any Interim Preservation Order made under Section 8 of the Town an Country Planning (Interim Development) Act 1943, or any compensatio which has been paid or which could have been claimed under any provisio relating to the preservation of trees or protection of woodlands contained i an operative scheme under the Town and Country Planning Act, 1932, and

(*b*) any injurious affection to any land of the owner which would result from th felling of the trees the subject of the claim.

11.—(1) A claim for compensation under this Order shall be in writing and shall b made by serving it on the authority, such service to be effected by addressing the claim t the authority and leaving it at or sending it by post to the principal office of the authorit

(2) The time within which any such claim shall be made as aforesaid shall be a perio of twelve months from the date of the decision of the authority, or of the Secretary of Stat as the case may be, or where an appeal has been made to the Secretary of State against th decision of the authority, from the date of the decision of the Secretary of State on th appeal.

12.—Any question of disputed compensation shall be determined in accordance wit the provisions of Section 179 of the Act.

13.—[(1) The provisions of section 61 of the Act shall apply to this Order and th Order shall take effect on 18th January 1980 .]

~~[(2) This Order shall apply to any tree specified in the First Schedule hereto, which i to be planted as mentioned therein, as from the time when that tree is planted.]‡~~

NOTE: Any person contravening the provisions of this Order by cutting dow uprooting or wilfully destroying a tree, or by wilfully damaging, topping or lopping a tre in such a manner as to be likely to destroy it is guilty of an offence and liable on summar conviction to a fine not exceeding £400 or twice the sum which appears to the court to b the value of the tree, whichever is the greater, or on indictment to a fine. The penalty fo any other contravention of this Order is a fine not exceeding £200 on summary convictio and, in the case of a continuing offence when the contravention is continued after conviction a person is liable on summary conviction to an additional fine not exceeding £5 for ever day on which the contravention is so continued.

If a tree other than one to which an Order applies as part of a woodland is removec uprooted or destroyed in contravention of an Order or is removed, uprooted or destroye or dies at a time when its cutting down or uprooting is authorised only by section 60(6) c the Town and Country Planning Act 1971 relating to trees which are dying or dead or hav become dangerous, it is the duty of the owner of the land, unless on his application th local planning authority dispense with the requirement, to plant another tree of appropriat size and species at the same place as soon as he reasonably can. Except in emergency, nc less than 5 days' previous notice of the removal, etc., should be given to the authority t enable the latter to decide whether or not to dispense with the requirement.

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† This provision is not to be included unless it appears to the authority that the Order should take effe immediately.

‡ This provision may be included in relation to trees to be planted pursuant to a condition imposed und Section 59 of the Act.

FIRST SCHEDULE

TREES SPECIFIED INDIVIDUALLY*

(encircled in black on the map)

No. on Map.	*Description.*	*Situation.*
NONE		

TREES SPECIFIED BY REFERENCES TO AN AREA*

(within a dotted black line on the map)

No. on Map.	*Description.*	*Situation*
NONE		

GROUPS OF TREES*

(within a broken black line on the map)

No. on Map.	*Description.*	*Situation*
NONE		

* The word "NONE" must be entered where necessary.

WOODLANDS*

(within a continuous black line on the map)

No. on Map.	*Description.*	*Situation*
W1	Mixed species consisting mainly of: Ash, Sycamore, Beech, Oak, Larch, Birch, Elm and Spruce	Cawston Woods, Dunchurch, Rugby.

* The word " NONE " must be entered where necessary.

SECOND SCHEDULE

This Order shall not apply so as to require the consent of the authority to

(1) the cutting down of any tree on land which is subject to a forestry dedication covenant where

(*a*) any positive covenants on the part of the owner of the land contained in the same deed as the forestry dedication covenant and at the time of the cutting down binding on the then owner of the land are fulfilled;

(*b*) the cutting down is in accordance with a plan of operations approved by the Forestry Commission under such deed.

(2) the cutting down of any tree which is in accordance with a plan of operations approved by the Forestry Commission under the approved woodlands scheme or other grant scheme under section 4 of the Forestry Act 1967 except a scheme which applies to a forestry dedication covenant;

(3) the cutting down, uprooting, topping or lopping of a tree.

(*a*) in pursuance of the power conferred on the Post Office by virtue of section 5 of the Telegraph (Construction) Act 1908 and section 21 of the Post Office Act 1969, or by or at the request of the Post Office where the land on which the tree is situated is operational land as defined by the Post Office Operational Land Regulations* and either works on such land cannot otherwise be carried out or the cutting down, topping or lopping is for the purpose of securing safety in the operation of the undertaking;

(*b*) by or at the request of

(i) a statutory undertaker where the land on which the tree is situated is operational land as defined by the Act and either works on such land cannot otherwise be carried out or the cutting down, topping or lopping is for the purpose of securing safety in the operation of the undertaking;

(ii) an electricity board within the meaning of the Electricity Act 1947, where such tree obstructs the construction by the board of any main transmission line or other electric line within the meaning respectively of the Electricity (Supply) Act 1919 and the Electric Lighting Act 1882 or interferes or would interfere with the maintenance or working of any such line;

(iii) a water authority established under the Water Act 1973, a drainage board constituted or treated as having been constituted under the Land Drainage Act 1976, or the Greater London Council, where the tree interferes or would interfere with the exercise of any of the functions of such water authority, drainage board, or Council in relation to the maintenance, improvement or construction of water courses or of drainage works; or

(iv) the Secretary of State for Defence, the Secretary of State for Trade, the Civil Aviation Authority or the British Airports Authority where in the opinion of such Secretary of State or Authority the tree obstructs the approach of aircraft to, or their departure from, any aerodrome or hinders the safe and efficient use of aviation or defence technical installations;

(*c*) where immediately required for the purpose of carrying out development authorised by the planning permission granted on an application made under Part III of the Act, or deemed to have been so granted for any of the purposes of that Part;

(*d*) which is a fruit tree cultivated for fruit production growing or standing on land comprised in an orchard or garden;

[Where the trees are within the Thames catchment area]

~~[(*e*) in pursuance of the powers of the Thames Water Authority under section 105 of the Thames Conservancy Act 1932.]~~

* S.I. 1973/310.

THIRD SCHEDULE

Provisions of the following parts of Part III of the Town and Country Planning Act 1971 as adapted and modified to apply to this Order.

33. (1) Without prejudice to the following provisions as to the revocation or modification of consents, any consent under the Order, including any direction as to replanting given by the authority on the granting of such consent, shall (except in so far as the consent otherwise provides), enure for the benefit of the land and of all persons for the time being interested therein.

35. Reference of applications to the Secretary of State.—(1) The Secretary of State may give directions to the authority requiring applications for consent under the Order to be referred to him instead of being dealt with by the authority.

(2) A direction under this section may relate either to a particular application or to applications of a class specified in the direction.

(3) Any application in respect of which a direction under this section has effect shall be referred to the Secretary of State accordingly.

(4) Where an application for consent under the Order is referred to the Secretary of State under this section, the provisions of Articles 4 and 5 of the Order shall apply as they apply to an application which falls to be determined by the authority.

(5) Before determining an application referred to him under this section the Secretary of State shall, if either the applicant or the authority so desire, afford to each of them an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose.

(6) The decision of the Secretary of State on any application referred to him under this section shall be final.

36. Appeals against decisions.—(1) Where an application is made to the authority for consent under the Order and that consent is refused by that authority or is granted by them subject to conditions, or where any certificate or direction is given by the authority, the applicant, if he is aggrieved by their decision on the application, or by any such certificate, or the person directed if he is aggrieved by the direction, may by notice under this section appeal to the Secretary of State.

(2) A notice under this section shall be served in writing within twenty-eight days from the receipt of notification of the decision, certificate or direction, as the case may be, or such longer period as the Secretary of State may allow.

(3) Where an appeal is brought under this section from a decision, certificate or direction of the authority, the Secretary of State, subject to the following provisions of this section, may allow or dismiss the appeal, or may reverse or vary any part of the decision of the authority, whether the appeal relates to that part thereof or not, or may cancel any certificate or cancel or vary any direction, and may deal with the application as if it had been made to him in the first instance.

(4) Before determining an appeal under this section, the Secretary of State shall, if either the appellant or the authority so desire, afford to each of them an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose.

(6) The decision of the Secretary of State on any appeal under this section shall be final.

37. Appeal in default of decision.—Where an application for consent under the Order is made to the authority, then unless within two months from the date of receipt of the application, or within such extended period as may at any time be agreed upon in writing between the applicant and the authority, the authority either—

(*a*) give notice to the applicant of their decision on the application; or

(*b*) give notice to him that the application has been referred to the Secretary of State in accordance with directions given under section 35 above;

the provisions of the last preceding section shall apply in relation to the application as if the consent to which it relates had been refused by the authority, and as if notification of their decision had been received by the applicant at the end of the said period of two months, or at the end of the said extended period, as the case may be.

45. Power to revoke or modify the consent under the order.—(1) If it appears to the authority that it is expedient to revoke or modify any consent under the Order granted on an application made under Article 3 of the Order, the authority may by Order revoke or modify the consent to such extent as they consider expedient.

(2) Subject to the provisions of sections 46 and 61 of the Act an Order under this section shall not take effect unless it is confirmed by the Secretary of State; and the Secretary of State may confirm any such Order submitted to him either without modification or subject to such modifications as he considers expedient.

(3) Where an authority submit an Order to the Secretary of State for his confirmation under this section, the authority shall furnish the Secretary of State with a statement of their reason for making the Order and shall serve notice together with a copy of the aforesaid statement on the owner and on the occupier of the land affected, and on any other person who in their opinion will be affected by the Order, and if within the period of twenty-eight days from the service thereof any person on whom the notice is served so requires, the Secretary of State, before confirming the Order, shall afford to that person, and to the authority, an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose.

(4) The power conferred by this section to revoke or modify a consent may be exercised at any time before the operations for which consent has been given have been completed.

Provided that the revocation or modification of consent shall not affect so much of those operations as has been previously carried out.

(5) Where a notice has been served in accordance with the provisions of subsection (3) of this section, no operations or further operations as the case may be, in pursuance of the consent granted, shall be carried out pending the decision of the Secretary of State under subsection (2) of this section.

46. Unopposed revocation or modification of consent.—(1) The following provisions shall have effect where the local planning authority have made an Order (hereinafter called "such Order") under section 45 above revoking or modifying any consent granted on an application made under a tree preservation order but have not submitted such Order to the Secretary of State for confirmation by him and the owner and the occupier of the land and all persons who in the authority's opinion will be affected by such Order have notified the authority in writing that they do not object to such Order.

(2) The authority shall advertise the fact that such Order has been made and the advertisement shall specify (a) the period (not less than twenty-eight days from the date on which the advertisement first appears) within which persons affected by such Order may give notice to the Secretary of State that they wish for an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose and (b) the period (not less than 14 days from the expiration of the period referred to in paragraph (a) above) at the expiration of which, if no such notice is given to the Secretary of State, such Order may take effect by virtue of this section and without being confirmed by the Secretary of State.

(3) The authority shall also serve notices to the same effect on the persons mentioned in subsection (1) above.

(4) The authority shall send a copy of any advertisement published under subsection (2) above to the Secretary of State, not more than three days after the publication.

(5) If within the period referred to in subsection (2) (a) above no person claiming to be affected by such Order has given notice to the Secretary of State as aforesaid and the Secretary of State has not directed that such Order be submitted to him for confirmation, such Order shall at the expiration of the period referred to in subsection (2) (b) of this section, take effect by virtue of this section and without being confirmed by the Secretary of State as required by section 45 of the Act.

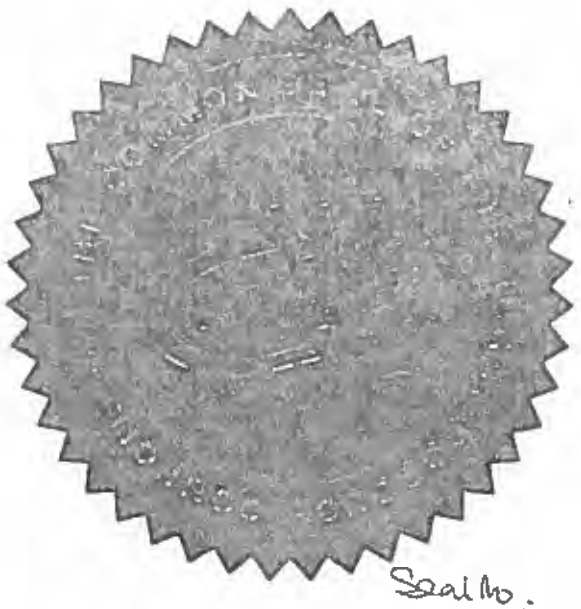
(6) This section does not apply to such Order revoking or modifying a consent granted or deemed to have been granted by the Secretary of State under Part III, Part IV or Part V of the Act.

GIVEN under the Common Seal of the
RUGBY BOROUGH COUNCIL

the 18th January 1980.

H. E. Dickens
Mayor

Clerk of the Borough Council.



Seal No. 25/80

Dated 19th January 1980.

THE RUGBY BOROUGH COUNCIL

TOWN AND COUNTRY PLANNING ACTS, 1971-74

TREE PRESERVATION ORDER

No. 39

relating to

Cawston Woods, Dunchurch, Rugby in the County of Warwick.

Cat. No. T.C.P. 38
Shaw & Sons Ltd., Shaway House, Lower Sydenham, SE26 5AU
S656 (N)

Annex EDP 6
Illustrative Summary of Survey Data

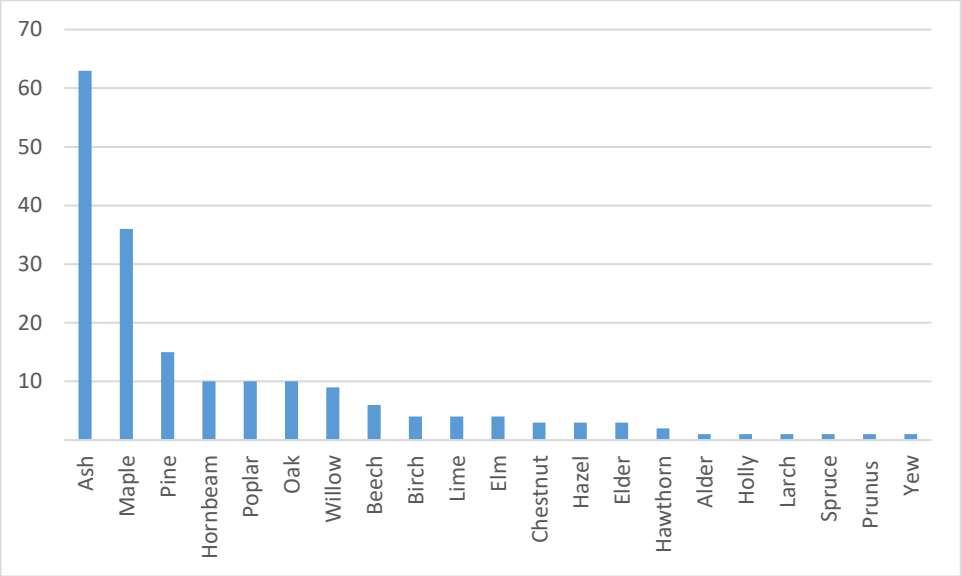


Figure 4.1 Species Diversity

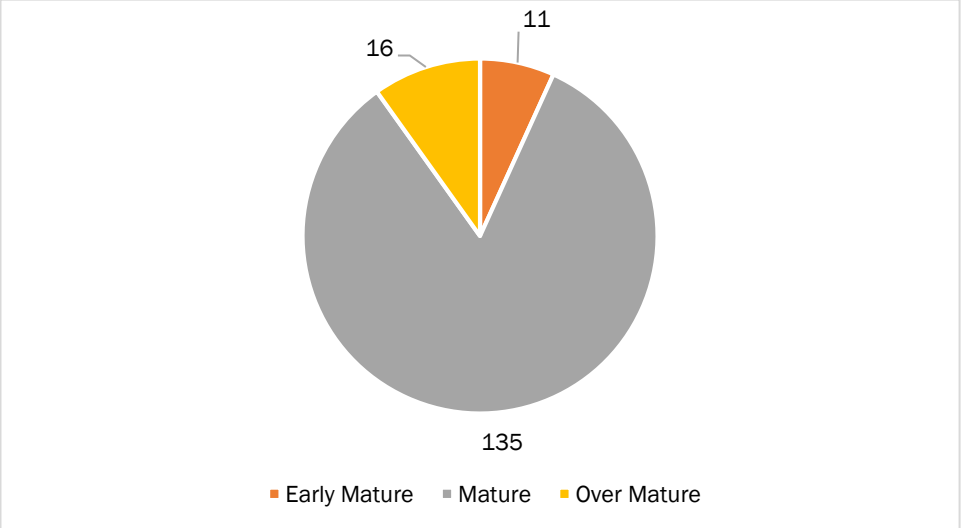


Figure 4.2: Age Distribution

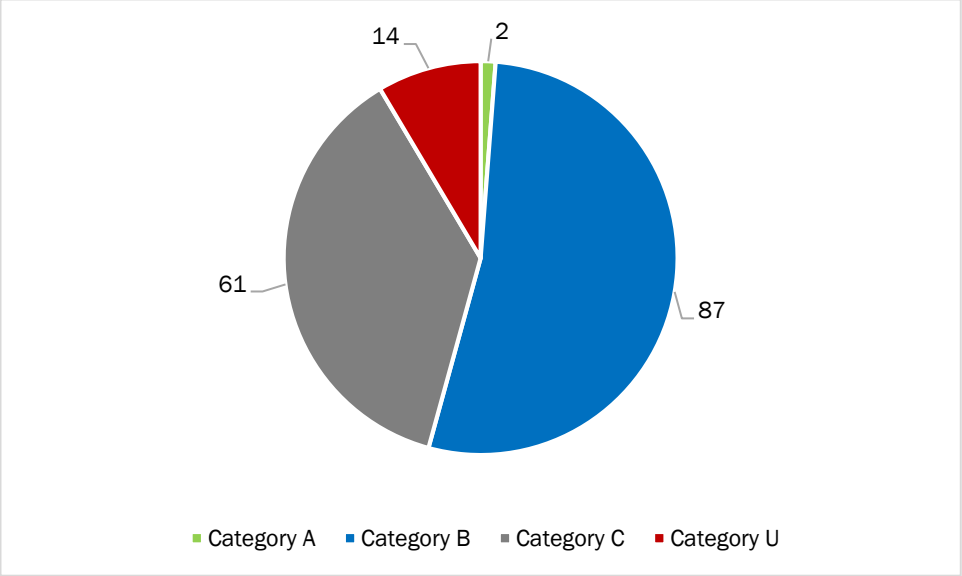


Figure 4.3: Category Grading

Annex EDP 7
Schedule EDP 2
Tree Constraints Schedule

Reference No.	Cat Grading	No of stems	RPA Radius (m)	RPA Area m²	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
G1	U	1	1.2	4.5	5	1	1	1	1
G2	B	1	1.2	4.5	30	2	2	2	2
T3	B	1	7.6	179.6	23	7	7	7	7
T4	C	1	5.4	91.6	23	8	4	4	7
G5	B	1	4.4	61.9	24	2	2	2	2
T6	B	2	2.9	26.1	23	7	7	7	7
T7	C	1	5.0	79.8	23	5	5	5	2
T8	B	4	1.0	3.3	23	8	5	5	8
T9	U	1	3.8	46.3	23	5	5	5	5
T10	B	1	6.1	117.7	23	10	10	5	5
T11	B	3	1.4	5.8	23	10	5	6	10
T12	B	1	6.0	113.1	23	8	5	7	7
G13	B	1	4.8	72.4	23	2	2	2	2
T14	A	1	6.2	122.3	26	11	11	11	11
T15	B	1	4.6	65.3	23	6	6	6	6
T16	B	1	8.5	228.0	25	11	10	6	7
T17	B	1	6.5	131.9	25	10	5	6	8
T18	C	1	5.9	108.6	25	11	7	6	10
T19	B	1	7.3	168.3	25	8	8	6	8
T20	C	1	7.3	168.3	25	2	0	2	5
T21	C	2	2.1	13.9	25	10	6	2	6
T22	B	1	6.4	127.1	25	7	7	7	7
T23	C	1	6.4	127.1	10	5	5	5	5
G24	C	1	3.4	35.5	18	2	2	2	2
T25	B	1	8.8	241.1	25	8	8	6	8
T26	B	1	7.2	162.9	23	7	7	7	7
G27	U	1	7.8	191.1	23	2	2	2	2
T28	U	1	10.2	326.9	23	12	7	0	7
T29	C	1	13.1	537.5	23	11	11	11	11
G30	C	1	3.4	35.5	18	2	2	2	2
T31	B	4	1.3	5.2	23	10	10	10	10
T32	B	1	9.8	304.2	25	12	10	4	10
T33	B	1	5.6	99.9	25	8	7	5	7

Reference No.	Cat Grading	No of stems	RPA Radius (m)	RPA Area m²	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
T34	C	1	7.7	185.3	24	7	6	5	6
G35	B	1	3.6	40.7	20	2	2	2	2
T36	B	1	7.6	179.6	24	10	7	7	7
T37	U	1	11.5	416.9	24	11	11	11	11
T38	C	1	11.5	416.9	24	11	11	11	11
T39	C	1	7.2	162.9	23	7	7	7	7
T40	B	1	8.4	221.7	30	4	4	4	4
T41	B	1	8.6	234.5	30	4	4	4	4
T42	B	2	3.2	33.0	30	4	4	4	4
T43	B	1	12.2	470.7	30	10	10	10	10
T44	B	1	8.6	234.5	30	8	8	8	8
T45	B	1	8.3	215.4	30	6	6	6	6
T46	B	1	8.4	221.7	25	6	7	7	7
T47	B	1	7.2	162.9	23	7	7	7	7
T48	C	1	5.8	104.2	23	6	6	6	6
G49	B	1	5.4	91.6	25	2	2	2	2
T50	B	4	5.0	79.8	23	6	6	6	6
G51	B	1	8.2	209.2	25	2	2	2	2
G52	C	1	4.4	61.9	25	2	2	2	2
G53	B	1	6.2	122.3	25	2	2	2	2
T54	B	1	4.4	61.9	18	7	7	7	7
G55	C	1	3.1	30.6	15	2	2	2	2
T56	B	1	10.8	366.4	28	11	11	11	11
T57	C	1	10.8	366.4	21	10	10	10	10
T58	B	1	7.3	168.3	29	6	6	6	6
T59	C	2	1.8	10.2	23	6	6	6	6
T60	C	1	3.7	42.1	23	8	8	8	8
T61	C	1	5.2	83.6	20	8	8	8	8
T62	B	1	8.6	234.5	30	6	6	6	6
T63	C	1	3.4	35.5	13	4	4	4	4
T64	C	1	3.8	46.3	13	4	4	4	4
T65	C	1	4.4	61.9	20	6	6	6	6
T66	C	4	0.7	1.6	20	6	6	6	6
T67	U	1	1.2	4.5	5	2	2	2	2
T68	C	3	1.0	3.1	13	2	5	5	2
G69	C	1	2.4	18.1	10	2	2	2	2
T70	B	2	1.8	10.2	18	6	6	6	6
T71	B	1	4.2	55.4	18	2	6	6	2
T72	C	1	4.2	55.4	15	2	5	6	5

Reference No.	Cat Grading	No of stems	RPA Radius (m)	RPA Area m²	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
T73	B	1	7.2	162.9	25	8	8	8	8
T74	C	1	4.2	55.4	20	2	4	6	4
T75	C	1	4.2	55.4	20	2	6	6	4
T76	C	1	6.0	113.1	20	7	7	7	7
T77	C	2	1.9	10.9	20	5	5	5	5
T78	U	1	5.0	79.8	20	2	6	6	2
T79	U	1	7.0	152.2	20	6	6	6	6
T80	C	1	4.8	72.4	19	5	6	5	2
T81	C	1	5.5	95.7	24	5	6	5	2
T82	C	1	6.2	122.3	23	8	7	4	7
T83	C	1	6.2	122.3	25	7	7	7	7
T84	B	1	6.5	131.9	26	7	10	7	7
T85	U	1	6.5	131.9	18	7	10	4	4
T86	C	1	7.0	152.2	20	4	10	7	7
T87	B	1	7.2	162.9	25	8	8	8	8
T88	C	1	6.6	136.8	25	6	8	11	8
T89	U	1	4.2	55.4	19	2	6	8	6
T90	U	1	5.4	91.6	19	2	6	8	6
T91	B	1	5.4	91.6	19	7	7	7	7
T92	B	1	5.4	91.6	19	6	7	10	7
T93	C	1	4.2	55.4	19	6	8	6	2
T94	B	1	4.2	55.4	16	7	7	7	7
T95	B	1	5.4	91.6	19	7	7	7	7
T96	B	1	5.4	91.6	19	5	7	7	5
T97	C	1	4.2	55.4	19	7	5	5	7
T98	C	1	4.2	55.4	19	6	4	4	6
T99	B	1	6.0	113.1	23	5	10	10	5
G100	B	1	4.2	55.4	21	2	2	2	2
T101	B	1	6.6	136.8	25	7	7	7	7
T102	C	1	4.8	72.4	23	6	6	6	6
T103	B	1	7.2	162.9	23	10	10	10	10
T104	C	1	5.4	91.6	18	5	7	5	10
T105	C	1	5.4	91.6	24	7	7	7	7
T106	C	1	5.4	91.6	24	7	7	7	7
T107	B	1	5.4	91.6	24	7	7	7	7
T108	B	1	6.6	136.8	20	5	10	10	5
T109	B	1	6.6	136.8	20	2	7	10	7
T110	B	1	6.6	136.8	24	10	10	10	10

Reference No.	Cat Grading	No of stems	RPA Radius (m)	RPA Area m²	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
T111	B	1	6.6	136.8	24	8	8	8	8
T112	B	1	4.8	72.4	20	7	7	7	7
T113	B	1	7.0	152.2	24	10	10	10	10
T114	B	1	4.8	72.4	24	6	6	6	6
T115	B	1	5.8	104.2	24	10	10	10	10
T116	B	1	4.8	72.4	24	4	5	7	5
T117	B	1	6.6	136.8	24	10	10	10	10
T118	C	1	4.6	65.3	18	8	8	8	8
T119	B	1	4.8	72.4	20	6	7	8	7
T120	U	1	4.6	65.3	15	4	4	8	6
T121	B	1	5.4	91.6	20	6	6	6	6
T122	B	1	4.8	72.4	18	4	5	7	5
T123	B	1	7.2	162.9	21	7	7	7	7
T124	C	1	5.4	91.6	21	5	6	8	6
T125	B	1	8.2	209.2	23	8	8	8	8
T126	B	1	6.4	127.1	20	6	8	8	6
T127	B	1	5.9	108.6	18	4	8	8	4
T128	B	1	6.1	117.7	23	4	11	6	1
T129	U	1	6.5	131.9	23	0	0	14	14
T130	B	1	4.6	65.3	23	6	6	6	6
T131	C	1	5.0	79.8	21	6	6	6	6
T132	B	1	6.0	113.1	21	8	8	8	8
T133	B	1	4.8	72.4	18	6	6	6	6
T134	C	1	4.3	58.6	18	4	6	8	6
T135	B	1	4.3	58.6	18	5	5	5	5
T136	B	1	5.4	91.6	23	7	10	10	7
T137	B	1	7.2	162.9	23	10	10	10	10
G138	C	1	1.8	10.2	8	2	2	2	2
T139	U	1	5.4	91.6	23	5	5	5	5
T140	C	1	2.8	23.9	15	5	5	5	5
G141	C	1	4.2	55.4	18	2	2	2	2
T142	C	1	3.2	33.0	18	5	5	5	5
T143	C	1	3.2	33.0	18	5	5	5	5
T144	B	4	1.1	4.1	25	10	10	10	10
T145	B	1	8.6	234.5	26	7	7	7	7
T146	C	1	5.3	87.6	26	4	4	4	4
T147	C	1	5.3	87.6	26	4	4	4	4

Reference No.	Cat Grading	No of stems	RPA Radius (m)	RPA Area m²	Ultimate Height (m)	Ultimate Crown Spread (m)			
						N	E	S	W
T148	C	1	5.3	87.6	26	4	4	4	4
T149	C	1	5.3	87.6	26	4	4	4	4
T150	C	1	5.4	91.6	23	6	6	6	6
T151	B	1	10.0	311.7	30	8	8	8	8
T152	B	1	5.6	99.9	29	6	6	6	6
T153	B	1	9.6	289.5	29	7	10	7	7
T154	B	1	8.0	203.1	29	7	10	7	7
T155	B	1	7.9	197.1	29	7	10	7	7
T156	A	1	11.3	399.7	30	10	11	10	10
T157	C	1	5.3	87.6	28	5	5	5	5
T158	B	1	11.5	416.9	24	11	11	11	11
T159	C	1	9.6	289.5	19	5	10	5	1
T160	B	1	9.6	289.5	29	8	8	8	8
T161	C	1	5.2	83.6	26	6	8	6	1
G162	C	1	4.2	55.4	28	2	2	2	2
T163	B	1	11.2	391.3	30	7	11	7	5
T164	B	1	7.2	162.9	25	8	8	8	8

Appendix 2
Cawston Fox Covert Woodland Survey (CSA Environmental)

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Cawston Spinney Woodland,

South West Rugby

Woodland Management Plan

July 2018

6c Southfield Road
Southam
Warwickshire CV47 0FB
United Kingdom

01926 810 023

enquiries@treeandwoodland.co.uk
www.treeandwoodland.co.uk

Report Reference	Date	Revision	Prepared by	Approved by	Comments
CSA/3015/07	09/07/2018	-	The Tree and Woodland Company	ABS	

Contents

Appendices

Executive Summary

CSA Environmental was instructed by Gallagher Estates Ltd to undertake an assessment of woodland at Cawston Spinney, near Rugby and to prepare Woodland Management Plan proposals to inform the future management of this area. The woodland area concerned represents 14.2ha woodland, including Fox Covert and Boat House Spinney, which form part of the wider Cawston Spinney woodland.

The wood was surveyed during May 2018, and divided into 11 management compartments. The data recorded for each is presented in the Woodland Compartment Schedule, Appendix A, and the associated compartment plan is in Appendix B.

The wood is predominantly mixed broadleaf Ash, English oak, Sycamore with other minor species (Wych elm, Sweet chestnut, Elm, Poplar, Beech, Crab apple and Field maple), and some pockets of conifer (Yew, Douglas for, Larch and Scots pine). The understorey contains some dense patches of Holly and Box. The mature trees are generally of late to mid C20 origin, although some Oak in the south-east corner date from the mid C19. The ground is fairly flat in the northern half with lighter soils, sloping gently south-east in the southern half where the ground is less well drained.

Part of the wood is designated as Ancient Semi-Natural (ASNW), and all of it is covered by a Tree Preservation Order (TPO). ASNW is protected in the National Planning Policy Framework (NPPF, 2012), and works to trees covered by TPOs require consent from the Local Planning Authority.

The woodland has landscape importance in the local area, supports some existing recreational use by local people and has a well-developed ground layer, a diverse tree species composition and a range of water features.

In terms of future opportunities, the wood offers the scope to be developed as a multi-purpose woodland resource, focused on silvicultural improvement, but with associated landscape, social and ecological benefits. The range of management objectives for the wood reflects this.

The work programme to deliver the objectives is divided into a detailed programme for years 1-10, and an outline for years 11-30 (see sections 5 and 6). The work recommendations fall into two categories;

‘General’ cover improvements to paths, installation of interpretation boards, and setting up volunteer groups and woodland activities such as nature trails and guided walks.

‘Compartment-specific’ cover thinning and selective felling of the tree canopy, restocking of trees and shrubs, invasive species removal, hedge replanting, eyesore clearance, pond and ditch restoration and glade creation.

A hazard tree management system should be put in place, and relevant permissions and consents for the recommended works will need to be gained from the LPA and the Forestry Commission.

1. Introduction

CSA Environmental was instructed by Gallagher Estates Ltd to undertake an assessment of woodland at Cawston Spinney, near Rugby and to prepare Woodland Management Plan proposals to inform the future management of this area.

The woodland area concerned comprises 14.2ha woodland, including Fox Covert and Boat House Spinney (hereafter referred to as 'the Wood'), an area which forms part of the wider Cawston Spinney woodland. This report has been prepared for CSA Environmental by The Tree and Woodland Company.

The work undertaken includes site survey to assess the woodland and collect relevant data, including species composition, tree age classes, condition, pests and diseases, management history, amenity and ecological value.

Plan preparation, focusing in particular on the strategic vision and outline management actions required for the woodland, to optimise its use as a public open space.

2. Woodland Details

The wood occupies an area of approximately 14.2ha and is located around central grid reference SP 4734 7252, 2 miles to the south-west of Rugby (see figure 1, p6).

The wood is accessed on the north edge of the woodland via off road parking on Cawston Lane adjacent to Lime Tree Village, with a further access track off the B4642 Coventry Road leading to a residential property in the south-west corner of the woodland. The wood has permissive public access, having a network of well-used pedestrian paths.

It is a predominantly mixed broadleaf wood designated in part as Ancient Semi-natural Woodland (ASNW) – see appendix C drawing CSA/3105/07-D-002, and sits on land ranging from flat to gently- sloping.

The wood is also protected by Tree Preservation Order no. 39/1980, which covers all of the survey area (see Appendix D drawing CSA/3015/07-D-003).

The wood boundary is defined generally by a post and wire fence dividing the wood from the surrounding agricultural land. The bordering agricultural fields are used for crop production and grazing sheep/cattle.

Figure 1. Cawston Spinney Site Plan © Bing Maps

3. Overview of Woodland

3.1. Species Composition and Canopy Structure

Cawston Spinney is predominantly mixed broadleaf woodland with some coniferous species. The main broadleaf species are Ash, Sycamore, and English oak; Ash tends to dominate the wetter ground in the northern tip near the entrance and in the south-eastern half. There are significant localised populations of Beech on the better drained ground in the centre (compartments 2 & 7, see Appendix B drawing CSA/3015/07-D-001), and of Hornbeam in the wetter areas at the south-eastern end (cpts 8 & 9). Other minor broadleaf species are Wild cherry, Sweet chestnut, Silver and Downy birch, Crab apple, Field maple, Wych elm, Grey and Hybrid poplar.

In terms of conifer representation, there is one significant stand of Yew in the northern half (cpt.3, see photo 1), interspersed with occasional broadleaves. This creates valuable contrast to the broadleaf character of the rest of the wood. Apart from this, there are small isolated clusters of Douglas fir, Norway spruce, Larch and Scots pine scattered throughout.

Photo 1: Yew stand (cpt. 3) provides contrast to the mainly broadleaf character.

The oldest trees are English oak of mid C19 origin in the south-eastern tip on the edge of a pond complex (cpts 9 & 10, see photo 2). Apart from these, the mature broadleaf trees throughout the wood date from the late C19 to early C20. Some of the Yew, Box, and Holly in the understorey also date from this era, and were probably planted to bring greater diversity and an evergreen component to the woodland.

Photo 2: Large mature Oak on south-eastern edge of wood (cpt.10).

Structurally, the Wood is generally two-tiered with a well-developed overstorey and a more sporadic understorey. There are few replacement trees in the midstorey as a result of the closely-spaced upper canopy specimens, meaning the woodland lacks some structural and age diversity.

The understorey is dense in places, particularly in the south-eastern corner (cpt.7), and the northern tips (cpts 1 & 4, see photo 3), where it is dominated by clusters of Holly and Box. Other minor understorey shrubs are Hawthorn – both Common and Midland, Hazel, Elder, Goat and Grey willow, Blackthorn. There are also sporadic, scattered patches of understorey tree regeneration, mostly Sycamore with some Ash, Hornbeam, Beech and Wych elm.

Localised pockets of Rhododendron and Snowberry can be found in the northern sections of the Wood (cpts 1, 4 & 5). These are both non-native, invasive species and their spread should be monitored; fortunately they are not widespread at present, which suggests they are being kept in check by the surrounding flora and site conditions.

The ground layer contains a good population of Bluebell in the northern half on the lighter soils (see photo 4), interspersed with Bramble and Nettle which tend to have dominated ground under open canopy, for example where overstorey trees have fallen over.

3.2. Topography and Soils

The Wood slopes very gently south-east with occasional undulations at the south-east end where there has been natural erosion by water and excavation by man to form ditches and ponds.

The bedrock geology is based on the Charmouth Mudstone Formation, a sedimentary deposit formed approximately 183 to 199 million years ago in the Jurassic Period. The superficial deposits on top of this are based on Dunsmore Gravel, which are superficial glaciofluvial deposits formed up to 2 million years ago in the Quaternary Period (‘Geology of Britain Viewer’, British Geological Survey, 2016).

Hence the soils in the central section of the woodland are well drained sandy loams over coarser loamy soils, while the northern corner and the south-eastern end are wetter with surface water flow and some wet patches. Ponds have been dug at the south-eastern end which are supplied by a boggy ditch running south-east across the Wood.

3.3. Water Features

There is a wide boggy strip of surface water in the north corner of the Wood (cpt 1) running south-west along the northern edge, making this a localised patch of wet woodland.

Another ditch runs along the south-western boundary into the south-eastern corner. Several ponds have been formed in this corner fed by the ditch, seemingly a mix of natural formation and excavation by man. Some were silted up and largely dry at the time of survey (May 2018), while others were holding more water. Most were rather stagnant, while the pond complex in the south-eastern tip of the wood has been encroached by fallen and regenerating Willow (see photo 5), and is heavily overshaded by mature clumps of Holly; nevertheless, it has valuable conservation potential and several ducks were nesting there.

Photo 5: Pond in the south-east corner overshaded by surrounding trees and shrubs.

3.4. Designations and Habitat Type

The MAGIC website (http://www.magic.gov.uk) shows that parts of Cawston Spinney are designated Ancient semi-natural woodland (ASNW), see see appendix C drawing CSA/3105/07-D-002; the website provides authoritative geographic information, from across government, about the natural environment. This means that these sections of the Wood have been in constant woodland cover since before 1600AD, and they still retain the native and naturalised tree species composition from this era.

The section of woodland between the two areas formally designated as ASNW is probably Plantation on Ancient Woodland Site (PAWS). Although not formally designated as such, the tree cover has clearly been felled in the early to mid C20 and replanted with a mix of broadleaves and conifer, whilst retaining a strong ground layer of Bluebell indicative of a former Ancient Woodland Site.

In terms of habitat classification the woodland is most widely associated with Natural Vegetation Classification W10 (Lowland mixed broadleaved woodland with Bluebell / Wild hyacinth), the wetter areas encouraging a strong Ash canopy and Dog's mercury ground layer in line with W8 (Lowland mixed broadleaved woodland with Dog's mercury). There are also two small pockets of W14 woodland in the centre of the wood (Beech – Oak woodland with Bramble) – Richard Tofts Ecology Vegetation Survey, June 2018, gives more detailed information.

3.5. Statutory and Legal Obligations

Felling licences and Tree Preservation Orders [TPOs]

The woodland is protected by Tree Preservation Order no. 39/1980, which covers all of the survey area (see Appendix D drawing CSA/3015/07-D-003). Tree Preservation Order no. 39/1980 currently protects the entire woodland. Works to trees which are covered by Tree Preservation Orders (TPOs) require consent from the Local Planning Authority (LPA).

A felling licence is required from the Forestry Commission under the Forestry Act 1967 if more than 5 cubic metres of timber is to be felled in any one calendar quarter.

Although there is an interrelationship between the roles of the LPA and the Forestry Commission, both need to be consulted in relation to any works to be carried out in Cawston Spinney.

Ancient Semi-Natural Woodland

In relation to development, the National Planning Policy Framework 2012 (NPPF) assumes protection of all ancient woodland and veteran trees unless it can be clearly demonstrated that the need of, or benefits of, development outweigh the loss.

Natural England and the Forestry Commission's aims in relation to ancient woodland and veteran trees reflect the Government's policy framework and are stated in their 'Standing Advice for Ancient Woodland and Veteran Trees, protecting them from development', January 2018:

‘Protection and maintenance of the ancient woodland resource as an irreplaceable biological and cultural asset’;

‘Improvement in the condition of our tree and woodland resource through sensitive sustainable management, including restoration of Plantations on Ancient Woodland Sites (PAWS) to native woodlands’;

‘Protection of veteran trees’.

These points need to be taken into account in any work recommendations for this wood.

Protected Species

It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981’ and the 'Countryside and Rights of Way Act 2000'. Therefore, ensure that trees are professionally surveyed for signs of bird nests, bat roosts or bat activity before starting any tree work; where possible avoid carrying out tree works in the bird nesting season [end of March to end of July].

As part of the work implementation, it is vital that the presence of protected species is considered and operations planned carefully; best practice guidance should be followed to avoid committing an offence. Licenses may also be required, depending on the type of work and time of year. More information on protected species can be found in the associated ecological reports prepared for this site.

Hazard Tree Management

Woodland owners and those responsible for managing woodland have a duty of care under the Occupiers’ Liability Acts 1957 / 1984, to do what is ‘reasonably practicable’ to ensure the risk of harm to visitors and their property is minimised. In this context, this means primarily managing the risk of harm posed by trees.

A hazard tree management programme should be instated, focused on regular inspection of trees to identify any hazards, and the subsequent implementation of control measures such as remedial tree work or removing the target form the danger zone.

3.6. Pests, Diseases and Climate Change

The woodland canopy has good species diversity being dominated by Ash and Sycamore, but with a good representation of English oak, Hornbeam, Beech, Sweet chestnut, Downy birch, Crab apple, Field maple, Grey and Hybrid poplar. There are also decent populations of Yew, Douglas fir, Norway spruce and Larch.

Species diversity is important as this future proofs the woodland against decimation of one or two species by disease or climate change. Ash is currently under major threat from Chalara dieback of Ash (Hymenoscyphus fraxineus), a fungal disease spread by windborne spores which threatens to kill a significant percentage of our Ash populations over the next 15-20 years. Future management needs to take this into account, with focus on how best to replace these potential losses.

3.7. Silvicultural Value

Several species are well represented in the tree canopy, and these have reasonable to good form, albeit somewhat drawn as the woodland is generally underthinned.

Ash is one of the main tree species in the Wood, and this is significant in relation to Chalara dieback of Ash and the threat this poses to our Ash populations nationwide (see section 3.5). Infected or dead Ash trees will have a lower financial value than healthy specimens, a significant factor to be considered in the thinning and tree replacement programme.

Although financial return is not the key consideration in the long term management of the Wood, there is scope for useful revenue from any future felled timber, the key products being firewood, pulpwood, and sawlogs for fencing / building materials.

3.8. Ecological Value

The Wood has good ecological value, having been in constant woodland cover for several hundred years. The areas of ASNW and adjacent compartments have a well-developed ground flora containing Bluebell, Dog's mercury, Lesser celandine, Herb robert, Lords and Ladies, Jack by the hedge, and Red campion. The species diversity and maturity of the trees and shrubs provides a range of habitat niches to birds, bats, fungi, and invertebrates. The ditch and pond network with associated wet areas is another valuable ecosystem for a range of flora and fauna (see photo 6). Full details on the Woodland ecology is available in the ecology reports, covering NVC botanical survey information, bird and bat surveys.

3.9. Amenity Value

Cawston Spinney has high landscape value in the local area, and would be an important feature in the centre of any new surrounding development (see photo 7). It is a decent size, covering approximately 14.2 ha and is the eastern half of a woodland complex totaling 25ha. It is composed of a good quality population of large mature trees, mainly broadleaf with some conifer. It is visible form Lime Tree and Cawston villages to the north, as well as Cawston Lane and the Coventry Road (B4642).

Photo 6: An area of wet ground fed by the central ditch.

Photo 7: The southern edge typifies the wood's landscape impact.

The Wood has permissive access with a network of paths throughout, and public footpaths link to it from open fields at the eastern end (see figure 1, p.6). There is a small ‘pull-in’ car parking area at the north end of Cawston Lane. It is frequented by walkers, and provides a valuable outdoor space for the local communities. Although these paths are well-used, the intervening woodland is not overly trampled suggesting walkers keep to the path network.

The wood’s status as Ancient Semi-Natural Woodland (at least in part) means it has a range of valuable habitat for birds and bats, a well-developed ground flora, and some impressive mature tree specimens. All these provide further opportunities for enjoyment of the wood by visitors.

4. Vision for Future Management

Cawston Spinney should be managed to maximise its potential as a multi-purpose woodland resource, focusing on silvicultural, social, environmental and ecological benefits, in line with aspirations for woodland outlined the UK Forestry Standard.

The underlying aim should be to develop a healthy tree cover with a good diversity of tree and shrub species, enabling the Wood to have a sustainable long-term positive impact in the local landscape. Its ecological value should be enhanced by protecting and diversifying the range of habitats. In the social context, the Wood's recreational, educational, and health benefits should be maximised. All of this should be achieved by adhering to the statutory and legal obligations of managing this Wood.

5. Management Objectives

The following objectives define how the long-term vision for the woodland will be delivered.

5.1. Silvicultural

- To develop a healthy and diverse tree and shrub cover dominated by broadleaf species with some conifer, by use of sustainable silvicultural systems such as Continuous Cover Forestry and Traditional Coppice with standards management.
- To develop a multi-layered canopy structure where appropriate, particularly in the ASNW sections.
- To transform the PAWS section of woodland to coppice with standards structure, comprising a strong Hazel and minor native shrub understorey with widely-spaced native and naturalised overstorey trees.
- To retain a coniferous element in the Wood, by preserving and enhancing the Yew compartment, and restocking canopy gaps created by felling with a small percentage of conifer species. This process should be focused on compartments outside the ASNW / PAWS.
- Within the constraints of the social and environmental objectives, generate income from tree felling by marketing products such as sawlogs for building/fencing, pulp wood, shavings, mulch, and firewood.

5.2. Environmental

- To develop a diverse tree and shrub species composition, with a multi-layered canopy structure. This will provide ecological and landscape benefits and future proof the woodland against the threat to individual tree species from pests, diseases and climate change.
- To maximize the diversity of ecological habitats, through pond and ditch improvements, woodland edge open ground and glade creation, in addition to structural diversification of the canopy.
- To preserve and enhance the ground flora species composition, particularly in the sections of ASNW and the intervening PAWS.
- To maintain and enhance the positive landscape impact of the woodland, through conserving a species-diverse and healthy tree canopy.
- To maximize the woodland's role as a carbon sink in combating climate change, by promoting a healthy tree cover, and minimising widespread loss of tree cover and excessive ground disturbance.

5.3. Social

- To maximise the recreational value of the Wood for local communities.
- To encourage local communities to make use of this facility, to promote healthy and happy lifestyles.
- To develop the network of paths for walkers, both able-bodied and disabled.
- To provide opportunities to observe and understand the flora and fauna in the Wood, through the use of interpretation boards, nature trails and guided walks.
- To provide opportunities for other suitable outdoor activities such as bushcraft.

5.4. Statutory *and Legal*

- To follow all required statutory and legal procedures in delivering management of the woodland, e.g. obtaining felling licences, gaining permission for work under TPO legislation, following appropriate EU and UK regulations on flora, fauna and habitat protection (especially in relation to Bats, Birds, Badgers, and Great crested newts) and on plant health procedures and invasive alien species control.
- To satisfy the owner's responsibilities under the Occupiers' Liability Acts to maintain the woodland in as safe a state as is reasonably practicable for woodland users. In particular, a procedure for hazard tree management should be put in place.

6. Detailed 10 Year Work Programme

The detailed 10 year work programme is divided into 'General Work Recommendations', which cover the wood as a whole, and 'Compartment – specific Work Recommendations' which relate to individual compartments within the wood (see drawing CSA/3015/07-D-001, Appendix B).

6.1. General Work Recommendations

Work type	Work Recommendations	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Permissions	Apply to Rugby Borough Council for consent to carry out recommended work under TPO legislation.										
	Apply to Forestry Commission for 10 year felling licence for work recommendations.										
Path Network	Improve paths nearest to access points into wood (cpts 1-6) to make suitable for disabled access. Surface and edge paths with appropriate materials, e.g. bark chip and wooden edging board.										
Interpretation Boards	Create and install interpretation / education boards at edge of wood / near paths, to inform visitors on woodland history, ecology, and management.										
Woodland Volunteer Group	Set up volunteer group to help manage the wood, and educate / inform the public - assist with walks/ activities, co-rdinate and run volunteer work days.										
Visitor Engagement / Activities	Develop nature trail in conjunction with interpretation boards, using stop points, explanative literature and/or mobile apps.										
	Set up guided walk programme focusing on woodland history and wildlife, taken by woodland volunteers / rangers and local experts.										
	Develop programme of wider activities for vistor engagement, e.g. Bushcraft.										
Hazard Tree Management	Set up hazard tree management programme, to ensure woodland owner's / manager's duty of care to visitors is satisfied. This will involve regular hazard inspections and execution of resultant recommended tree work or other mitigatory measures.										

6.2. Compartment-specific Work Recommendations

Full survey information on each woodland compartment can be found in Appendix A, Woodland Compartment Schedule.

Cpt no	Cpt name	Work Recommendations	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
W1	ASNW North corner	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity.										
		Selectively fell 3no. coupes 20-30m diameter within Ash stands, and replant with Alder / Willow species as long term Ash replacements. Selectively thin remainder by 20% of stems.	■									
		Fell Hybrid poplar at next intervention, and remove or treat stumps. Replant with Alder / Willow species.	■									
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.	■	■	■	■						
		Clear Rhododendron in understorey, and remove stumps / roots.	■	■								
W2	PAWS Central	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity. Consider transformation to Coppice with Standards.										
		Selectivley fell 3no. 30m diameter coupes and replant with Hazel, and minor native shrubs. Selectively thin temainder by 20% of stems.	■									
		Restore hedge on north edge by removal of Ash / Sycamore / Elder, and replant with Hawthorn, Blackthorn, Hazel, Field maple, minor native shrubs.								■		
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.	■	■	■	■				■	■	■
W3	Yew Compartment	**Long-term aim:** Retain evergreen dominated character focused on Yew.										
		Selectively thin mixed broadleaf overstorey lightly to favour best specimens: remove 15-20% of stems.	■									
W4	North-east Tip Upper	**Long-term aim:** Manage as dense screen plantation alongside road with strong evergreen component as well as mixed broadleaf species.										
		Consider removal of Snowberry in perimeter hedge and at south end of compartment - invasive non-native species: replant these areas with Hawthorn, Hazel, Blackthorn, Holly, and a few replacement overstorey trees (English oak, Sweet chestnut, Small-leaved lime).					■					
		Selectively fell 1no. coupe 20-30m diameter within Ash stand, and replant with English oak, Sweet chestnut, Small-leaved lime as long term Ash replacements.					■					
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.					■	■	■	■		
W5	North-east Tip Lower	**Long-term aim:** Manage as mixed broadleaf woodland with some conifer / evergreen for screening between the two fields.										
		Fell Ash and replant with English oak, Sweet chestnut.					■					
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.					■	■	■	■		
		Clean out rubbish on the ground (tents, waste).	■									
		Consider creating path into wood from gap between Cpt 4 and 5, to link to central path network.									■	
W6	PAWS East	**Long-term aim:** Retain mixed broadleaf dominated character, and develop structural and species diversity.										
		Carry out light selective thin of overstorey (approx. 15% of stems).	■									
		Selectively fell 2no. 30m diameter coupes and replant with English oak, Beech, Douglas fir, Scots pine .	■									
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.	■	■	■	■						

Compartment-Specific Work recommendations (continued)

Cpt no	Cpt name	Work Recommendations	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
W7	South Central	**Long-term aim:** develop as mixed broadleaf compartment with some conifer, and good species and structural diversity.										
		Selectively fell 3no. coupes 20-30m diameter, and replant with English oak, Beech, Hornbeam, Scots pine; focus felling coupes on areas of Ash. Selectively thin remainder of stand by 20% of stems, favouring any decent Sycamore regeneration.			■							
		Clean out ditch running across centre of compartment.				■						
		Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.									■	
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment. Glade maintenance ; ground layer management.			■	■	■	■			■	■
W8	ASNW East Central	**Long-term aim:** develop mixed broadleaf compartment with good species and structural diversity.										
		Selectively fell 4no. coupes 20-30m diameter, and replant with English oak, Beech, Sweet chestnut, Hornbeam, Scots pine; focus felling coupes on areas of Ash. Selectively thin remainder of stand by 20% of stems, favouring any decent Sycamore regeneration.			■							
		Clean out ditch running across centre of compartment.				■						
		Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.									■	
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment. Glade maintenance ; ground layer management.			■	■	■	■			■	■
W9	South-east Compartment	**Long-term aim:** develop as mixed broadleaf compartment with strong Hornbeam representation, and with species and structural diversity.										
		Selectively thin by 20% of stems to favour best specimens, and selectively fell to create 2-3no. coupes for understorey regeneration: focus on patches of Hornbeam / Sycamore natural regeneration and light spaces in the canopy, and replant amongst these as necessary.			■							
		Clean out ditch running across centre of compartment. Consider restoration of ponds at south-east end of compartment by cleaning out and reinstating water inflow / outflow.				■						
		Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.									■	
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment. Glade maintenance ; ground layer management.			■	■	■	■			■	■
W10	South-eastern Tip	**Long-term aim:** develop as low intervention Wildlife Conservation Area.										
		Clean out / clear around ponds, by selective removal of bank-edge and fallen trees and shrubs. Clean out inflow / outflow ditches to ensure good water circulation.							■			
W11	Southern Tip	**Long-term aim:** develop as mixed broadleaf woodland strip with a strong understorey layer and an evergreen component to sustain screening between the two fields.										
		Clear Elm as they die and replant with Oak, Hornbeam, and Hazel, minor native shrubs and a significant Holly / Box component.					■					
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment. Glade maintenance ; ground layer management.					■	■	■	■		

7. Outline Long-term Work Programme (Years 11-30)

As for the detailed 10 year Work Programme, the works are divided into 'General Work Recommendations' and 'Compartment-specific Work Recommendations.

7.1. General Work Recommendations

Work type	Work Recommendations	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30
Permissions	Apply to Rugby Borough Council for consent to carry out recommended work under TPO legislation.				
	Apply to Forestry Commission for 10 year felling licence for work recommendations.				
Path Network	Maintain / improve paths nearest to access points into wood (cpts 1-6) to make suitable for disabled access. Surface and edge paths with appropriate materials, e.g. bark chip and wooden edging board.				
Interpretation Boards	Upgrade / improve interpretation / education boards at edge of wood / near paths, to inform visitors on woodland history, ecology, and management.				
Woodland Volunteer Group	Set up volunteer group to help manage the wood, and educate / inform the public - assist with walks/ activities, co-rdinate and run volunteer work days.				
Visitor Engagement / Activities	Ugrade / improve nature trail in conjunction with interpretation boards, using stop points, explanative literature and/or mobile apps.				
	Continue / develop guided walk programme focusing on woodland history and wildlife, taken by woodland volunteers / rangers and local experts.				
	Continue / develop programme of wider activities for vistor engagement, e.g. Bushcraft.				
Hazard Tree Management	Carry out hazard tree management programme.				

7.2. Compartment-Specific Work Recommendations

Cpt no	Cpt name	Work Recommendations	Yr 11-15	Yr 16-20	Yr 21-25	Yr 26-30
W1	ASNW North corner	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
W2	PAWS Central	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity. Consider transformation to Coppice with Standards.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Hedge replanting maintenance.				
W3	Yew Compartment	**Long-term aim:** Retain evergreen dominated character focused on Yew.				
		Selectively thin mixed broadleaf overstorey. Review need to fell / replace any Yew.				
W4	North-east Tip Upper	**Long-term aim:** Manage as dense screen plantation alongside road with strong evergreen component as well as mixed broadleaf species.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.				
W5	North-east Tip Lower	**Long-term aim:** Manage as mixed broadleaf woodland with some conifer / evergreen for screening between the two fields.				
		Selective thinning, respacing.				
W6	PAWS East	**Long-term aim:** Retain mixed broadleaf dominated character, and develop structural and species diversity.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.				

Compartment-Specific Work Recommendations (continued)

Cpt no	Cpt name	Work Recommendations	Yr 11-15	Yr 16-20	Yr 21-25	Yr 26-30
W7	South Central	**Long-term aim:** develop as mixed broadleaf compartment with some conifer, and good species and structural diversity.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Clean out ditch running across centre of compartment.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.				
		Glade maintenance ; ground layer management.				
W8	ASNW East Central	**Long-term aim:** develop mixed broadleaf compartment with good species and structural diversity.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Clean out ditch running across centre of compartment.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.				
		Glade maintenance ; ground layer management.				
W9	South-east Compartment	**Long-term aim:** develop as mixed broadleaf compartment with strong Hornbeam representation, and with species and structural diversity.				
		Selective thinning, coupe felling and replanting, respacing young planting.				
		Clean out ditch running across centre of compartment and any functional ponds.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment.				
		Glade maintenance ; ground layer management.				
W10	South-eastern Tip	**Long-term aim:** develop as low intervention Wildlife Conservation Area.				
		Pond restoration.				
W11	Southern Tip	**Long-term aim:** develop as mixed broadleaf woodland strip with a strong understorey layer and an evergreen component to sustain screening between the two fields.				
		Understorey clearance and replanting.				
		Replanting maintenance : weed control, loss replacement,formative pruning, stake firming / tie adjustment. Glade maintenance ; ground layer management.				

8. Monitoring and Review

The detailed work programme should be reviewed annually, to check on progress against the work specified for that year. Unforeseen circumstances such as poor weather and difficult ground conditions, allied to restricted windows for delivering work on an ecological basis, can mean work has to be rescheduled. New considerations which were not a factor at the start of the work programme can also mean that work specifications need modification.

Resultant changes to the work schedule should be incorporated into the programme, and annual delivery targets revised accordingly.

Appendix A Woodland Compartment Schedule

Site: Cawston Spinney **Surveyor:** ABS **Date:** June 2018

Key: MB = Mixed broadleaf MC = Mixed conifer

Cpt no	Species	Dbh range	Age range	Height	Form	Condition	Amenity value	Ecological value	Comments	Work Recommendations	Priority
W1	Ash, Sycamore, Elm, Grey poplar, English oak, Yew, Hybrid poplar	50-100	1900-1970	15-25	M/ MS	M	H	MH	ASNW. Wetter woodland with Ash dominated overstorey: some decent English oak and Sycamore. Large Hybrid poplar on NW edge. Underthinned in places, but generally reasonable. Ash in particular drawn up and tall. Reasonable structure: sporadic mid-storey and understorey representation. Holly, Box, Hazel with scattered Elder. Ground layer; strong Bramble/ Nettle growth with isolated patches of Bluebell.	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity.	
										Selectively fell 3no. coupes 20-30m diameter within Ash stands, and replant with Alder / Willow species as long term Ash replacements. Selectively thin remainder by 20% of stems.	M
	Elder, Hawthorn, Hazel, Holly, Rhododendron, Box, Sycamore/Ash regen Bramble, Nettle & Bluebell	10-40	1900-2000	1-15	M/ MS					Fell Hybrid poplar at next intervention, and remove or treat stumps. Replant with Alder / Willow species.	M
										Clear Rhododendron in understorey, and remove stumps / roots.	M
W2	Beech, Sycamore, English oak, Douglas fir	30-80	1900-1980	15-20	M	MG	H	M	Probable PAWS. MB overstorey: Sycamore dominated with some Beech / Ash / Downy birch. Single tier canopy / lack of structure. Open understorey with occasional Elder and Sycamore / Ash natural regeneration. Yew and Box along NW edge by field: hedge here also has some Elder / Sycamore / Hawthorn in it. Ground layer: dominated by Bluebell with occasional Nettle and Bramble.	**Long-term aim:** develop as mixed broadleaf compartment with good structural and species diversity. Consider transformation to Coppice with Standards.	
	Yew, Elder, Ash, Sycamore, Box Bramble, Nettle, Bluebell	2-30	1960-2010	1-6	M/ MS					Selectively fell 3no. 30m diameter coupes and replant with Hazel, and minor native shrubs. Selectively thin temainder by 20% of stems.	M
										Restore hedge on north edge by removal of Ash / Sycamore / Elder, and replant with Hawthorn, Blackthorn, Hazel, Field maple, minor native shrubs.	L
W3	Yew, Sycamore, Beech, Ash, English oak, Hawthorn	30-90	1880-1970	12-20	M/ MS	MG	H	L	Probable PAWS. Yew dominated mid-storey and overstorey with some MB between these. Sparse understorey: occasional Box. Ground layer largely bare earth with sporadic patches of Bluebell, Bramble & Nettle.	**Long-term aim:** Retain evergreen dominated character focused on Yew.	
	Box, Sycamore Bluebell, Nettle, Bramble	5-20	1900-2000	1-10		M				Selectively thin mixed broadleaf overstorey lightly to favour best specimens: remove 15-20% of stems.	M

Site: Cawston Spinney **Surveyor:** ABS **Date:** June 2018

Key: MB = Mixed broadleaf MC = Mixed conifer

Cpt no	Species	Dbh range	Age range	Height	Form	Condition	Amenity value	Ecological value	Comments	Work Recommendations	Priority
W4	Yew, Sycamore, Beech, Ash, English oak	20-100	1880-1980	8-20	M/ MS	MG	H	M	MB overstorey with some Yew and large Holly at north end by roadside. Significant percentage of Ash. Dense understorey of Holly, Box, Elm, other MB shrubs. Snowberry dense at south end. Hedges on both sides: Hawthorn / Sycamore / Snowberry trimmed. Decent ground layer: some Bluebell, but also patches of Nettle. Rabbit warrens / active.	**Long-term aim:** Manage as dense screen plantation alongside road with strong evergreen component as well as mixed broadleaf species.	
	Box, Sycamore, Wych elm, Holly, Hawthorn, Snowberry, Elder Bluebell, Nettle, Jack-by-the-hedge, Lords & Ladies	5-30	1920-2000	1-15						Consider removal of Snowberry in perimeter hedge and at south end of compartment - invasive non-native species: replant these areas with Hawthorn, Hazel, Blackthorn, Holly, and a few replacement overstorey trees (English oak, Sweet chestnut, Small-leaved lime).	M
										Selectively fell 1no. coupe 20-30m diameter within Ash stand, and replant with English oak, Sweet chestnut, Small-leaved lime as long term Ash replacements.	M
W5	Ash, Sycamore, Beech, Wych Elm, Douglas for, Yew	20-70	1930-1980	14-25	M	M	M	ML	Ash / Sycamore dominated overstorey with Beech, Wych elm, Yew, Douglas fir. Understorey scattered Holly, Laurel, Elm and Elder. Ground layer: Bramble, Nettle with some Bluebell / Dogs mercury. Discontinuous hedge around edges (Hawthorn, Sycamore, Ash, Bramble, Elder).	**Long-term aim:** Manage as mixed broadleaf woodland with some conifer / evergreen for screening between the two fields.	
										Fell Ash and replant with English oak, Sweet chestnut.	M
	Wych elm, Laurel, Box, Elder, Snowberry, Sycamore Bramble, Bluebell, Dogs mercury	5-20	1950-2000	1-6						Clean out rubbish on the ground (tents, waste).	H
										Consider creating path into wood from gap between Cpt 4 and 5, to link to central path network.	L
W6	Beech, Ash, Sycamore, English oak, Larch, Douglas fir, Downy birch, Norway spruce	30-80	1900-1980	15-25	M	MG	H	M	Probable PAWS. MB dominated overstorey (Sycamore / Beech / Ash) with scattered Douglas fir / Oak / Larch. Tree form variable: some suppressed. 1/2 decent Douglas fir, Norway spruce and Downy birch. Patches of Box / Yew and scattered natural regeneration (Sycamore / Beech / Ash) in understorey. Ground layer: good patches of Bluebell with good fallen deadwood. Occasional daffodil (cultivated). Hedges discontinuous. Good path network.	**Long-term aim:** Retain mixed broadleaf dominated character, and develop structural and species diversity.	
	Yew, Box, Sycamore, Elm, Elder, Hawthorn Bramble, Nettle, Bluebell, Red campion	5-30	1900-2000	2-15	M/ MS					Carry out light selective thin of overstorey (approx. 15% of stems).	M
										Selectively fell 2no. 30m diameter coupes and replant with English oak, Beech, Douglas fir, Scots pine .	M

Site: Cawston Spinney **Surveyor:** ABS **Date:** June 2018

Key: MB = Mixed broadleaf MC = Mixed conifer

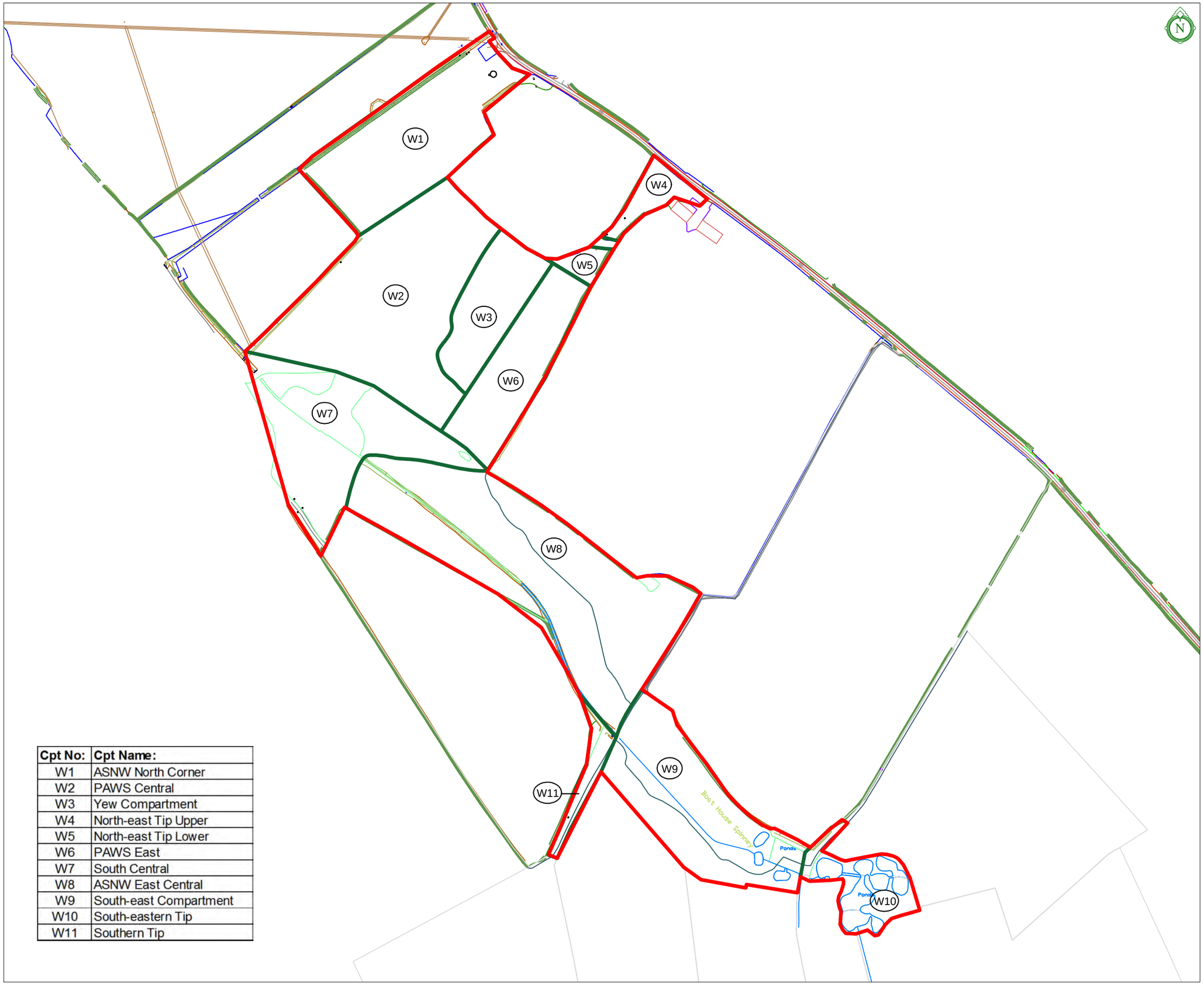
Cpt no	Species	Dbh range	Age range	Height	Form	Condition	Amenity value	Ecological value	Comments	Work Recommendations	Priority
W7	Beech, Ash, Sycamore, Hornbeam, English oak, Larch, Douglas fir	30-80	1900-1970	15-25	M	M	H	M	Beech dominated overstorey with Sycamore. Ash / Larch. Larch and Douglas fir drawn and slender. Fallen Beech in centre of compartment: canopy gap. Understorey is sparse with clusters of Holly / Box and scattered Sycamore / Norway maple natural regeneration. Lack of Beech / Ash in understorey. Ground layer: good patches of Bluebell, especially in southern corner. Ditch runs east-west across compartment.	**Long-term aim:** develop as mixed broadleaf compartment with some conifer, and good species and structural diversity.	
	Yew, Elder, Hazel, Holly, Box, Norway maple, Sycamore Bramble, Nettle, Bluebell, Jack-by-the-hedge, Dogs mercury, Celandine & Sycamore seedlings	2-20	1900-2000	1-8	M/ MS					Selectively fell 3no. coupes 20-30m diameter, and replant with English oak, Beech, Hornbeam, Scots pine; focus felling coupes on areas of Ash. Selectively thin remainder of stand by 20% of stems, favouring any decent Sycamore regeneration.	M
										Clean out ditch running across centre of compartment.	M
										Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.	L
W8	Sycamore, Beech, Ash, English oak, Sweet chestnut, Hornbeam, Wych elm, Larch, Scots pine, Norway spruce, Douglas fir	30-90	1880-1980	18-25	M/ MS	MG	H	M	ASNW. MB overstorey dominated by Sycamore and Ash (Ash dominant along southern half). Generally spacing reasonable. Isolated MC (Larch and Scots pine) with pocket of Norway spruce in eastern corner, and Douglas fir on east edge. Good clusters of Wych elm throughout. Understorey sporadic: occasional patches of Holly, Box with Hazel and MB natural regeneration. Central path and ditch along southern edge.	**Long-term aim:** develop mixed broaldeaf compartment with good species and structural diversity.	
	Hawthorn, Hazel, Holly, Box, Elder, Sycamore, Ash, Hornbeam, Wych elm natural regeneration, Yew Dogs mercury, Bramble, Nettle, Herb robert, Bluebell, Bracken	5-30	1900-2000	1-15	M/ MS	M				Selectively fell 4no. coupes 20-30m diameter, and replant with English oak, Beech, Sweet chestnut, Hornbeam, Scots pine; focus felling coupes on areas of Ash. Selectively thin remainder of stand by 20% of stems, favouring any decent Sycamore regeneration.	M
										Clean out ditch running across centre of compartment.	M
										Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.	L

Site: Cawston Spinney **Surveyor:** ABS **Date:** June 2018

Key: MB = Mixed broadleaf MC = Mixed conifer

Cpt no	Species	Dbh range	Age range	Height	Form	Condition	Amenity value	Ecological value	Comments	Work Recommendations	Priority
W9	Ash, English oak, Downy birch, Hornbeam, Hybrid poplar, Wych elm, Grey poplar	40-100	1880-1970	18-25	M	MG	H	MH	MB overstorey dominated by Ash/ Hornbeam / English oak. Large clusters of Hornbeam along northern / southern edges: several tall, drawn specimens. Overstorey trees reasonably spaced, some underthinned. Understorey dense in places (Holly/ Box clumps) and generally strong. Widespread Sycamore natural regeneration with occasional Hornbeam / Field maple. Central boggy ditch with adjacent ponds / scrapes. Ground wetter than northern half. Large fallen Hybrid poplar at east end, creating canopy gap.	**Long-term aim:** develop as mixed broadleaf compartment with strong Hornbeam representation, and with species and structural diversity.	
	Hawthorn, Hazel, Holly, Box, Elder, Hornbeam, Sycamore, Field maple Bramble, Nettle, Dogs mercury, Soft rush, Bluebell, Herb Robert	5-30	1900-2000	1-15	M/ MS	M				Selectively thin by 20% of stems to favour best specimens, and selectively fell to create 2-3no. coupes for understorey regeneration: focus on patches of Hornbeam / Sycamore natural regeneration and light spaces in the canopy, and replant amongst these as necessary.	M
										Clean out ditch running across centre of compartment. Consider restoration of ponds at south-east end of compartment by cleaning out and reinstating water inflow / outflow.	M
										Consider creation of 1-2no. 20-30m diameter glades on / near path network for visitor use and as habitat niche within woodland, by selective felling, ground clearance, and maintenance of open ground.	L
W10	Ash, English oak, Downy birch	40-120	1850-1980	15-18	M	MG	H	H	Wet lobe mainly filled by 2 ponds, surrounded by large mature Oak (C19). Occasional Ash and Birch. Understorey generally dense Holly. Ponds grown over / stagnated: Goat willow growing across furthest pond.	**Long-term aim:** develop as low intervention Wildlife Conservation Area.	
	Hawthorn, Hazel, Holly, Sycamore, Goat willow, Blackthorn, Elder, Wych elm	5-30	1900-1990	1-12	M/ MS	MG				Clean out / clear around ponds, by selective removal of bank-edge and fallen trees and shrubs. Clean out inflow / outflow ditches to ensure good water circulation.	L
W11	Ash, English oak	40-110	1850-1980	15-25	M	G	M	ML	Narrow spike of woodland with dense undertsorey of Elm, Hawthirn, Elder, Ash with occasional overstorey trees: 1 fine English oak. Path along centre.	**Long-term aim:** develop as mixed broadleaf woodland strip with a strong understorey layer and an evergreen component to sustain screening between the two fields.	
	Wych elm, Crab apple, Ash, Hawthorn, Blackthorn, Elder Bramble, Nettle	5-20	1950-2000	2-10	M/ MS	M				Clear Elm as they die and replant with Oak, Hornbeam, and Hazel, minor native shrubs and a significant Holly / Box component.	M

Appendix B Drawing CSA/3015/07-D-001, Woodland Compartment Plan



Cpt No:	Cpt Name:
W1	ASNW North Corner
W2	PAWS Central
W3	Yew Compartment
W4	North-east Tip Upper
W5	North-east Tip Lower
W6	PAWS East
W7	South Central
W8	ASNW East Central
W9	South-east Compartment
W10	South-eastern Tip
W11	Southern Tip

KEY

Woodland compartment

Survey boundary

NOTES:
To be read in conjunction with woodland schedule (Appendix A).

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Woodland Compartment Plan
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/07
Drawing No:	CSA/3015/07-D-001
Rev:	-
Scale:	1:4000 @ A3
Date:	26.06.18
Drawn:	CG
Checked:	ABS
Appendix:	B

CSA environmental

thetreeandwoodland COMPANY

6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

Appendix C Drawing CSA/3015/07-D-002 ASNW Plan

KEY

Area indicated as Ancient Semi Natural Woodland (ASNW)

NOTES 1:
To be read in conjunction with Arboricultural Report (CSA/3105/07).

NOTES 2:
Image copyright of Magic Map.

REVISIONS

REV:	Date:	Description:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Magic Map ASNW Plan (Appendix C)
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/07
Drawing No:	CSA/3015/07-D-002
Rev:	-
Scale:	Not to scale
Date:	26.06.18
Drawn:	JW
Checked:	ABS

CSA environmental

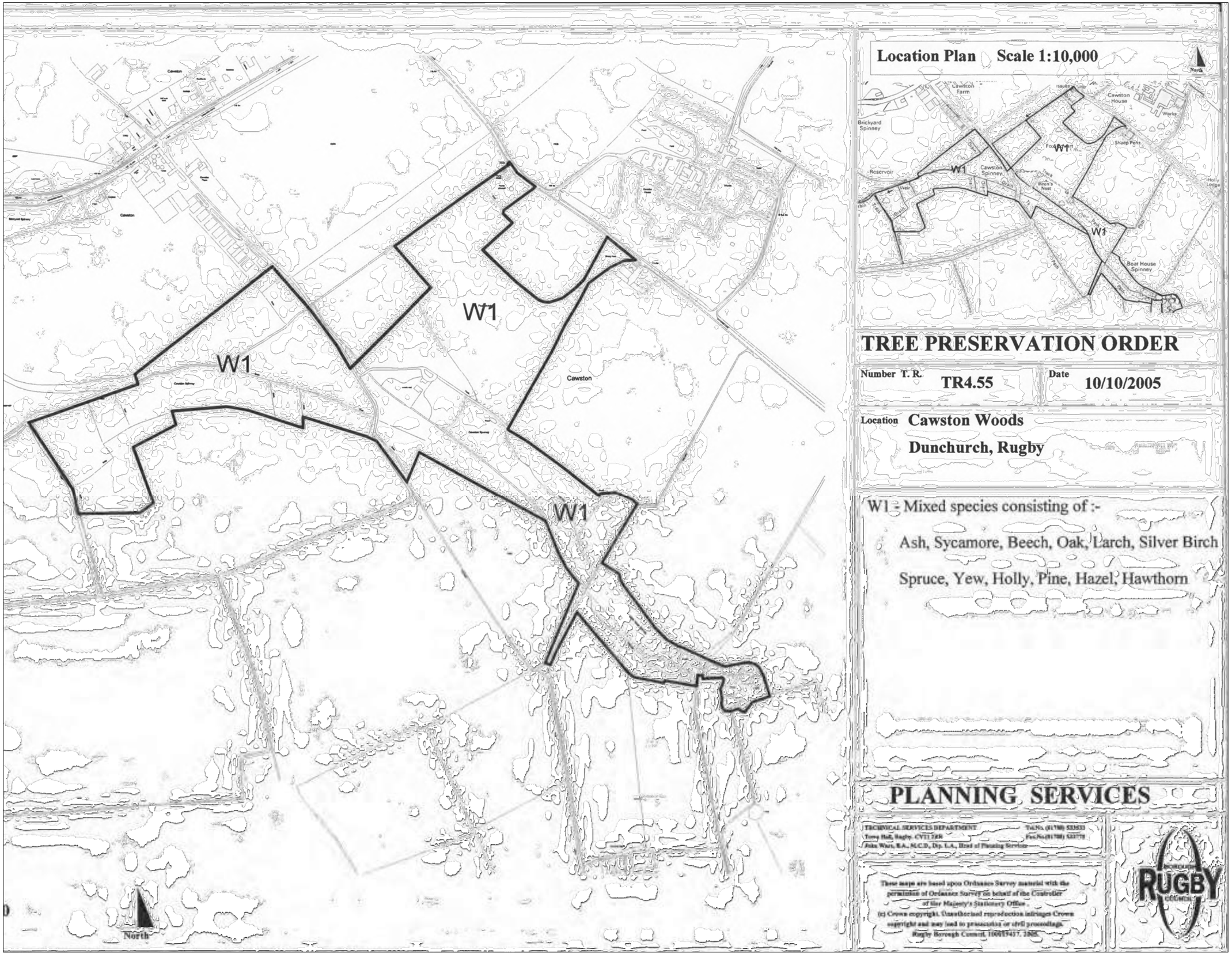
thetreeandwoodland COMPANY

6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

Appendix D Drawing CSA/3015/07-D-003 TPO Plan



Location Plan **Scale 1:10,000**

TREE PRESERVATION ORDER

Number T. R.	Date
TR4.55	10/10/2005

Location Cawston Woods
Dunchurch, Rugby

W1 - Mixed species consisting of :-

Ash, Sycamore, Beech, Oak, Larch, Silver Birch

Spruce, Yew, Holly, Pine, Hazel, Hawthorn

PLANNING SERVICES

TECHNICAL SERVICES DEPARTMENT
Tony Hall, Rugby. CV21 2RR
John Ward, B.A., M.C.D., Dip. L.A., Head of Planning Services

Tel.No. (01788) 533533
Fax.No.(01788) 541179

RUGBY BOROUGH COUNCIL

KEY

Boundary of Woodland TPO order.

NOTES 1:
To be read in conjunction with Arboricultural Report (CSA/3105/07).

NOTES 2:
Image copyright of Rugby Borough Council.

REVISIONS

REV:	Date:	Description:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Cawston Spinney TPO Plan (Appendix D)
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/07
Drawing No:	CSA/3015/07-D-003
Rev:	-
Scale:	Not to scale
Date:	26.06.18
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thetreeandwoodland COMPANY

6c Southfield Road
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Warwickshire
CV47 0FB

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Appendix 3
Cawston Fox Covert Arboricultural Survey (CSA Environmental)

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Cawston Spinney – Woodland Assessment in Relation to Development

South West Rugby

Woodland BS5837: 2012 Appraisal

July 2018

6c Southfield Road
Southam
Warwickshire CV47 0FB
United Kingdom

01926 810 023

enquiries@treeandwoodland.co.uk
www.treeandwoodland.co.uk

Report Reference	Date	Revision	Prepared by	Approved by	Comments
CSA/3015/06	09/07/2018	-	The Tree and Woodland Company / ABS	AM	

Contents

Appendices

Appendix A	Tree Schedule
Appendix B	Tree Schedule – Explanatory notes
Appendix C	CSA/3015/06-D-001-002, Tree Constraints Plan
Appendix D	Drawing CSA/3105/06-D-003, TPO Plan
Appendix E	Drawing CSA/3015/06-D-004, ASNW Plan
Appendix F	Cascade chart for Tree Quality Assessment (BS5837:2012)

Executive Summary

CSA Environmental was instructed by Gallagher Estates Ltd to undertake an arboricultural appraisal of Cawston Spinney, a 14.2ha woodland 2 miles south-west of Rugby. The base survey informing this report records the tree cover, while the report identifies arboricultural constraints and opportunities to inform development planning and design.

A survey of the Site was undertaken in May 2018: all collected survey data and work recommendations are presented in the Tree Schedule (Appendix A), and the tree locations on the Tree Constraints Plan (Appendix C).

The wood is comprised of predominantly mature mixed broadleaves, the main species being Ash, Sycamore and English Oak, with scattered conifer - mostly Yew and Douglas Fir. There are sporadic dense clusters of Holly, Box and Hawthorn which make up the understorey tree cover, with good Bluebell ground cover in the northern woodland.

Parts of the woodland are designated as Ancient Semi Natural woodland (ASNW), as highlighted in Appendix E. The woodland as a whole is further covered by a Tree Preservation Order (TPO), as highlighted in Appendix D.

The overall arboricultural and landscape value of the woodland is of high value, and the wood as a whole is assessed as category A.

The woodland edge trees are of most relevance to any potential new development, and these have been recorded as 15 groups and 27 individuals. They are generally in good to fair condition, are up to 25m in height, and are of high arboricultural and landscape value; consequently, in the context of BS5837:2012, they are assessed collectively as Category A (high value), with occasional B category (moderate value), consisting of two individual trees and one tree group.

The woodland will therefore form a significant constraint for adjacent development, but also act as a valuable amenity, landscape, and ecological asset.

It will be necessary to provide a suitable non-irrational buffer zone surrounding the woodland in any development design, in line with NTPF guidance 2012 and Forestry Commission and Natural England standing advice January 2018. This buffer zone is recommended as habitat strip between 15-20m wide along the edge of the wood (see Appendix C), the actual width along any given edge taking account of the tree root protection area, potential future growth, shading issues, risk of harm from hazardous tree and the ASNW and TPO status of the wood.

In terms of managing the woodland edge, certain trees have been recommended for haloing (staged clearance of surrounding vegetation). Selective thinning in line with the woodland management plan June 2018 is also required.

In relation to the design and plan process, consultation with the LPA planners and Tree Officer will be required, at the advanced planning stage an Arboricultural Impact Assessment (AIA), and Tree Protection Plan (TPP) and Arboricultural Method (AMS) will all be necessary, to inform arboricultural impact avoidance, mitigation and compensation measures.

In order to carry out the woodland tree works, felling and TPO consent will need to be gained, and appropriate working practices adopted, including the requirement for work licenses in relation to protected species under National and European Law.

1. Remit and Scope

1.1 This report has been prepared for CSA Environmental by The Tree and Woodland Company, on behalf of Gallagher Estates for land at Cawston Spinney, Rugby (hereafter referred to as 'the Site').

1.2 The remit is as follows:

1.3 Assess the woodland edge trees in relation to adjacent new development. This will be done in accordance with BS5837 (2012): 'Trees in relation to design, demolition and construction – Recommendations' and include:

- A survey schedule detailing tree species, condition, quality categories, Root Protection Areas (RPAs), comments and any work recommendations;
- Confirmation of Tree Preservation Orders, Conservation Areas or other statutory regulations affecting the trees;
- A Tree Constraints Plan (TCP), showing the location, canopy spread, quality category and RPAs of the woodland edge;
- An Arboricultural Appraisal report, inclusive of the TCP and schedule, will outline the arboricultural constraints and opportunities to inform masterplan design.

2. Survey Methodology

2.1 Cawston Spinney and the trees in it have been assessed in line with the current recommendations, as detailed in British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Hence this an arboricultural assessment of the trees with the aim of informing the Root Protection Area / Buffer Zone required along the woodland edges in relation to any proposed new development.

2.2 The woodland has been evaluated in overview, to present its collective value in landscape and arboricultural terms (see section 3 of this report).

2.3 The woodland edge trees have been surveyed in more detail as a series of linear groups (G1-15) with significant trees within these (T1-27) plotted and recorded individually (see section 4 and appendix A of this report). Explanatory notes about the survey and categorisation process are set out in Appendix B.

2.4 The woodland groups have each been assigned a quality category in line with BS5837:2012, based on their collective value. Thus, where a group has a regular distribution of A category trees in it, albeit interspersed with some lower quality B and C category trees, the group is still considered to be A category overall, as the highest quality trees define the value of the whole group and the extent of RPA allocated to it.

2.5 The largest and most notable trees have been recorded individually, with a quality category and RPA assigned to each. The RPA is a circle on the ground centred on the tree's trunk with a radius calculated as a multiple of the trunk diameter at 1.5m above ground level.

2.6 All trees and groups have been surveyed to record tree species, age class, diameter at breast height (dbh), height, crown spread, condition, estimated remaining contribution, recommendations, Quality Category and Root Protection Area (RPA). The assessment was carried out from ground level from within the Site.

2.7 The RPAs of the groups and individuals have then been used to inform the recommended buffer zones around the woodland perimeter. The buffer zone is a strip of non-intervention land between the woodland and any development; it will be wide enough to safeguard the trees and their root systems, and to protect the woodland habitat as a whole from damage or deterioration as a result of the long-term impacts of construction. The RPAs of individual trees and the buffer zones have been illustrated on a Tree Constraints Plan (see CSA/3015/06/D/001-002, Appendix C). The plan scale is 1:2000 when printed at A3 size.

3. Woodland Description

3.1 Woodland overview

3.1.1 The Site occupies an area of 14.2 ha and is located around central grid reference SP 4734 7252, 2 miles to the south-west of Rugby. It is located approximately 2 miles to the south-west of Rugby town centre and lies directly to the south of Cawston village, see Figure 1.

Figure 1. Cawston Spinney Site Plan © Bing Maps

3.1.2 It is accessed via off-road parking on Cawston Lane to the north of the woodland adjacent to Lime Tree Village, with a further access track off the B4642 Coventry Road leading to a residential property in the south-west corner of the woodland.

3.1.3 The Site comprises a predominantly mixed broadleaf woodland used for recreation and pleasure. The bordering agricultural fields are used for crop production and grazing sheep/cattle, and there has been recent residential development, Lime Tree Village, on land to the north-east of Cawston Lane.

3.1.4 The Woodland is covered by Rugby Borough Council Tree Preservation Order reference no. 39/1980. A copy of the tree preservation order schedule and plan are included in Appendix D. Works to trees which are covered by Tree Preservation Orders (TPOs) require consent from the Local Planning Authority.

3.1.5 The MAGIC website (http://www.magic.gov.uk) indicates that parts of Cawston Spinney are designated Ancient semi-natural woodland (ASNW) - see drawing CSA/3015/06/D/004, Appendix E. The website provides authoritative geographic information, from across government, about the natural environment.

3.1.6 In relation to development, the National Planning Policy Framework 2012 (NPPF) assumes protection of all ancient woodland and veteran trees unless it can be clearly demonstrated that the need of, or benefits of, development outweigh the loss.

3.1.7 Natural England and the Forestry Commission's aims in relation to ancient woodland and veteran trees reflect the Government's policy framework and are stated in their 'Standing Advice for Ancient Woodland and Veteran Trees, protecting them from development', January 2018:

- 'Protection and maintenance of the ancient woodland resource as an irreplaceable biological and cultural asset';
- 'Protection of veteran trees'.

These points need to be considered in any work recommendations for the woodland edge trees covered in this survey.

3.1.8 It should be noted that Ancient Semi-natural Woodland is defined as woodland which has been under constant tree cover since before 1600AD, and still retaining the native and naturalised tree species composition from this era. However, this does not mean that all or any of the trees in it are of this age, i.e. more than 400 years. Generally, the trees in ASNW are of naturally regenerated or planted origin and are much younger than the wood itself; this is the case at Cawston Spinney where the oldest trees date from the early to mid C19.

3.2 Species Composition and Canopy Structure

3.2.1 Cawston Spinney is predominantly mixed broadleaf woodland with some coniferous species. The main broadleaf species are Ash, Sycamore, and English oak; Ash tends to dominate the wetter ground in the northern tip near the entrance and in the south-eastern half. There are significant localised populations of Beech on the better drained ground in the centre, and of Hornbeam in the wetter areas at the south-eastern end. Other minor broadleaf species are Wild cherry, Sweet chestnut, Silver and Downy birch, Crab apple, Field maple, Wych elm, Grey and Hybrid poplar.

3.2.2 In terms of conifer representation, there is one significant stand of Yew in the northern half (see photo 1), interspersed with occasional broadleaves. This creates valuable contrast to the broadleaf character of the rest of the wood. Apart from this, there are small isolated clusters of Douglas fir, Norway spruce, Larch and Scots pine scattered throughout.

Photo 1: Yew stand (cpt. 3) provides contrast to the mainly broadleaf character.

3.2.3 The oldest trees are English oak of mid C19 origin in the south-eastern tip on the edge of a pond complex (see photo 2). Apart from these, the mature broadleaf trees throughout the wood date from the late C19 to early C20. Some of the Yew, Box, and Holly in the understorey also date from this era and were probably planted to bring greater diversity and an evergreen component to the woodland.

Photo 2: Large mature Oak on south-eastern edge of wood (cpt.10).

3.2.4 Structurally, the Wood is generally two-tiered with a well-developed overstorey and a more sporadic understorey. There are few replacement trees in the midstorey as a result of the closely-spaced upper canopy specimens, meaning the woodland lacks some structural and age diversity.

3.2.5 The understory is dense in places, particularly in the south-eastern corner, and the northern tips (see photo 3), where it is dominated by clusters of Holly and Box. Other minor understorey shrubs are Hawthorn – both Common and Midland, Hazel, Elder, Goat and Grey willow, Blackthorn. There are also sporadic, scattered patches of understorey tree regeneration, mostly Sycamore with some Ash, Hornbeam, Beech and Wych elm.

3.2.6 Localised pockets of Rhododendron and Snowberry can be found in the northern sections of the Wood. These are both non-native, invasive species and their spread should be monitored; fortunately, they are not widespread at present, which suggests they are being kept in check by the surrounding flora and site conditions.

3.2.7 The ground layer contains a good population of Bluebell in the northern half on the lighter soils (see photo 4), interspersed with Bramble and Nettle which tend to have dominated ground under open canopy, for example where overstorey trees have fallen over.

Photo 3: Clumps of Holly in the woodland understorey.

Photo 4: Excellent Bluebell ground layer in the northern part of the wood.

3.2.8 Other species represented are Lesser celandine, Herb Robert, Lords and Ladies, Jack by the hedge, Red campion, and localised clusters of Bracken indicative of dry, acid, sandy soil.

3.3 Topography and Soils

3.3.1 The Wood slopes very gently south-east with occasional undulations at the south-east end where there has been natural erosion by water and excavation by man to form ditches and ponds.

3.3.2 The bedrock geology is based on the Charmouth Mudstone Formation, a sedimentary deposit formed approximately 183 to 199 million years ago in the Jurassic Period. The superficial deposits on top of this are based on Dunsmore Gravel, which are superficial glaciofluvial deposits formed up to 2 million years ago in the Quaternary Period ('Geology of Britain Viewer', British Geological Survey, 2016).

3.3.3 Hence the soils in the central section of the woodland are well drained sandy loams over coarser loamy soils, while the northern corner and the south-eastern end are wetter with surface water flow and some wet patches. Ponds have been dug at the south-eastern end which are supplied by a boggy ditch running south-east across the Wood.

3.4 Amenity Value

3.4.1 Cawston Spinney has high landscape value in the local area and would be an important feature in the centre of any new surrounding development (see photo 5). It is a decent size, covering approximately 15ha, and is the eastern half of a woodland complex totaling 25ha. It is composed of a good quality population of large mature trees, mainly broadleaf with some conifer. It is visible form Lime Tree and Cawston villages to the north, as well as Cawston Lane and the Coventry Road (B4642).

Photo 5: The southern edge typifies the wood's landscape impact.

3.4.2 The Wood has permissive access with an extensive network of paths throughout, and public footpaths link to it from open fields at the eastern end, see Figure 1. There is a small 'pull-in' car parking area at the north end of Cawston Lane. It is frequented by walkers and provides a valuable outdoor space for the local communities. Although these paths are well-used, the intervening woodland is not overly trampled suggesting walkers keep to the path network.

3.4.3 The wood's status as Ancient Semi-Natural Woodland means it has a range of valuable habitat for birds and bats, a well-developed ground flora, and some impressive mature tree specimens. All these provide further opportunities for enjoyment of the wood by visitors.

4. Woodland Edge Tree Evaluation

4.1 This section gives specific consideration to the value of the woodland edge trees, both as groups and significant individuals within these, in order to inform the required width of the buffer zones around the wood.

4.2 The woodland edge groups (G1-G27) comprise of early-mature to mature age class trees. Overall, they are generally of good/fair health and of typical woodland form, with drawn slender stems and suppressed crown form which have a phototropic growth habit due to competition for light.

4.3 The structure of the woodland edge groups is generally two-tiered with drawn middle-mature to mature overstorey tree cover with scattered midstorey cover to the north & east (See Photo 6). The south & west comprise of dense self-sown and planted understorey with drawn/average formed overstorey tree cover of middle-mature to mature age class (See Photo 7).

Photo 6: Indicating overstorey tree cover with scattered midstorey within Group 13

Photo 7: Group 8 indicating overstorey tree cover with dense understorey.

4.4 The species composition of these groups varies with the north & eastern groups (G1-G4 & G11-G15) comprising of mixed broadleaves of Poplar sp., Ash, Oak, Beech, Sycamore with occasional Douglas Fir, Scots pine & Norway spruce, with understorey Ash & Holly. The southern & western woodland edge groups (G5 – G10) have a varied mixed broadleaf species composition consisting of Hornbeam, Poplar sp., Oak, Ash & Sweet chestnut, with understorey Holly, Elm & Willow.

4.5 Within the woodland edge are several individual trees (T1-T27) which are of good/fair overall health and are notable along the woodland periphery. These trees have been highlighted due to their overall size, condition, form and arboricultural merit compared to the surrounding woodland edge population. The rationale in identifying these trees has been to help inform the recommended buffer surrounding the woodland.

4.6 There are two notable individual English Yew (T6 & T7) situated on the western boundary (cpt 7), which are of late maturity and display early veteran features, having partially failed at the root plate and consequently have layered with phoenix regeneration (See photo 8).

Photo 8: English Yew which has failed and layered with phoenix regeneration.

5. Tree and Woodland Categorisation

Based on the value of the trees and woodland as described on sections 3 and 4, the quality categorisation for these in relation to BS5837: 2012 is as follows.

5.1 Woodland Categorisation

5.1.1 Cawston Spinney is composed of a mature tree cover, predominantly broadleaf with some conifer, dating from as early as the mid C19, but generally of early to mid C20 origin. The trees are of high value arboriculturally, and in a landscape context as the wood is visible from nearby roads, footpaths and settlements.

5.1.2 On this basis, the woodland trees are collectively valued as A category in relation to BS5837: 2012.

5.2 Woodland Edge Tree Categorisation

Overall 27 trees and 15 groups were surveyed at the Site, the specific number of each tree/group surveyed in each quality category can be seen in the table below:

Table 1. Summary of arboricultural categories present

BS 5837:2012 Quality Category	Reference number as on Tree Constraints Plan (TWC1207-D-001)			Total
	Trees	Groups	Hedges	
Category A				
Stem and RPA shown green on Tree Constraints Plan: Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years and with potential to make a lasting contribution.	T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T26, T27	G1, G2, G3, G4, G5, G7, G8, G9, G10, G11, G12, G13, G14, G15	-	39
Category B				
Stem and RPA shown blue on Tree Constraints Plan: Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years and with potential to make a significant contribution.	T1,T2	G6	-	3
Category C				
Stem and RPA shown grey on Tree Constraints Plan: Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm whose loss could easily be mitigated. These trees should not necessarily pose a constraint to development.	-	-	-	-

BS 5837:2012 Quality Category	Reference number as on Tree Constraints Plan (TWC1207-D-001)			Total
	Trees	Groups	Hedges	
Category U				
Stem and RPA shown dark red on Tree Constraints Plan: Trees which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds although they may have ecological significance.	-	-	-	-
Totals	**27**	**15**	**-**	**42**

5.2.1 Almost all the woodland edge groups and individual trees have been assigned A category due to their collective landscape benefits and the fact that they have a life expectancy of at least 40 years. The groups have a regular distribution of A category trees, albeit interspersed with some lower quality B and C category trees; they are therefore still allocated A category overall, as the highest quality trees define the value of the whole group.

5.2.2 The exceptions are group G6 and trees T1-2, which are category B. G6 is a moderate quality group due to its shorter potential life expectancy with several Elm in the understorey. However, it does also contain trees which have the potential for a long-term contribution in the landscape. Individual trees T1-T2 are indicated as B category trees due these trees being of late maturity, which thus reduces their long-term life expectancy.

6. Management Proposals

6.1 Woodland Edge Buffer Zone

6.1.1 The key arboricultural constraints to development have been identified in sections 3 and 4 as:

- The woodland as a whole which has a diverse mature tree species composition and high landscape value, being in quality category A in relation to BS5837: 2012.

6.1.2 Individual and groups of trees within the woodland edges of high value, generally also assigned to quality category A (Individuals T3-27, and Groups G1-5, 7-15), with Trees T1-2 and Group G6 in category B. Their significance relates to their landscape, conservation, and historic contribution. The woodland is therefore a significant arboricultural and landscape constraint, and there should be a suitable stand-off or buffer zone from the woodland to the edge of any new development. The buffer zone is a strip of non-intervention land between the woodland and any development; it will be wide enough to safeguard the trees and their root systems, and also to protect the woodland habitat as whole from damage or deterioration as a result of the long-term impacts of construction.

6.1.3 In terms of calculating the buffer zone width, the recommended RPAs for the woodland edge individuals and groups based on BS5837:2012 guidance equate to circles centred on the tree trunks with radii varying between 8 and 14 metres.

6.1.4 However, in the context of Cawston Spinney, other important factors need to inform the buffer width. The woodland edge trees are disproportionately tall in relation to their trunk diameters, and hence the trees will cast extensive shade over the adjacent open ground and any new development on this. Many of the woodland edge trees have the future potential to grow taller and in particular wider, and hence will encroach on the buffer zone in time.

6.1.5 Although there are no veteran trees in the wood, there are several woodland edge trees showing signs of early veteran status and the potential to become veterans in future; veterans are afforded greater protection under National Planning Policy Framework guidance, 2012, and under Natural England / Forestry Commission Standing Advice on Ancient Woodland and Veteran Trees, January 2018.

6.1.6 Parts of Cawston Spinney are designated Ancient Semi-natural Woodland (ASNW), and the whole woodland is covered by Rugby Borough Council Tree Preservation Order reference no. 39/1980.

6.1.7 The Natural England / Forestry Commission Standing Advice, January 2018, is relevant to the size of the minimum buffer zone around ASNW, stating: ‘leaving an appropriate buffer zone of semi-natural habitat between the development and the ancient woodland (depending on the size of the development, a minimum buffer should be at least 15 metres).

6.1.8 On account of these factors, it is recommended that the width of the buffer zone at Cawston from the woodland edge to the start of the development envelope should be between 15 to 20m wide. No construction or construction-related activity should be planned within this zone. Therefore, masterplan design should take into account the need to keep all construction operations outside the buffer zone.

6.1.9 The rationale for this buffer width is as follows. A 15m root protection area for all the trees on the edge of this semi-natural woodland, the maximum recommended in BS5837:2012, allows for existing root development, potential future growth of roots and crowns, and shade considerations.

6.1.10 An additional 5m along certain sections of the woodland edge (see Tree Constraints Plan CSA/3015/06/001-002, appendix C) creates a 20m ecological buffer to give more extensive protection to the areas designated as ASNW. Two further areas of the woodland not designated as ASNW have also been given a 20m buffer. One area is the section of woodland between the two ASNW sections, as it has a ground flora of Ancient woodland quality and links the two ASNW pockets, and hence is of high value. The second area is the section of woodland at the south-eastern tip which contains a pond complex and some large mature Oak, collectively providing valuable arboricultural and conservation habitat.

6.1.11 These buffer width recommendations are based on an arboricultural analysis of the woodland and the trees within it. **The extent of this buffer should also be informed by the ecological reports being done on the site (NVC botanical survey, bird and bat assessments), as this may widen the proposed widths.**

6.1.12 The buffer should be allowed to develop into semi-natural habitat, which will create a resilient landscape and ecological protective zone and provide connectivity to the existing woodland. Developments such as gardens must not intrude into these buffer zones, as this may result in the spread of inappropriate species into the woodland.

6.1.13 In summary, the proposed buffer is essential in enabling the adjacent agricultural land to be developed without undermining this valuable woodland. With it in place, Cawston Spinney will provide excellent landscape and amenity benefits to any new development and its residents.

6.2 Tree Works

6.2.1 There are proactive tree works recommended to Yew trees T6-T7 which require staged haloing of the midstorey and understorey surrounding both, as highlighted within the Tree Schedule (Appendix A). These works should be phased over a period of time by selective felling to open up light levels and to reduce future competition, enabling their long-term retention.

6.2.2 It is further recommended that some selective thinning of the woodland edge groups as a whole is carried out, to favor the better-quality trees for the long-term and to allow planting of succession trees. This should be done in conjunction with the Compartment-specific Work Recommendations Programme in the Woodland Management Plan (CSA 3015/07/R/001, June 2018).

6.3 Future Planning Requirements

6.3.1 The following is recommended to inform the next stages of the design and planning process of the proposed development, such that suitable arboricultural impact avoidance, mitigation and compensation measures may be adopted: Consultation with the LPA Planners and Tree Officer regarding the potential effects of development on the woodland and the proposed buffer zone.

- Arboricultural Impact Assessment in line with BS 5837:2012.
- A draft tree protection plan.

6.3.2 Together with:

A final Tree Protection Plan and Arboricultural Method Statement once the design is fixed at the advanced planning stage.

7. Statutory Obilgations and Guidance

7.1 Felling licences and Tree Preservation Orders [TPOs]

7.1.1 The woodland is protected by Tree Preservation Order no. 39/1980, which covers all of the survey area (see Appendix D drawing CSA/3015/07-D-003). Tree Preservation Order no. 39/1980 currently protects the entire woodland. Works to trees which are covered by Tree Preservation Orders (TPOs) require consent from the Local Planning Authority (LPA).

7.1.2 A felling licence is required from the Forestry Commission under the Forestry Act 1967 if more than 5 cubic metres of timber is to be felled in any one calendar quarter.

7.1.3 Although there is an interrelationship between the roles of the LPA and the Forestry Commission, both need to be consulted in relation to any works to be carried out in Cawston Spinney.

7.2 Ancient Semi-Natural Woodland

7.2.1 In relation to development, the National Planning Policy Framework 2012 (NPPF) assumes protection of all ancient woodland and veteran trees unless it can be clearly demonstrated that the need of, or benefits of, development outweigh the loss.

7.2.2 Natural England and the Forestry Commission's aims in relation to ancient woodland and veteran trees reflect the Government's policy framework and are stated in their 'Standing Advice for Ancient Woodland and Veteran Trees, protecting them from development', January 2018:

- 'Protection and maintenance of the ancient woodland resource as an irreplaceable biological and cultural asset';
- 'Improvement in the condition of our tree and woodland resource through sensitive sustainable management, including restoration of Plantations on Ancient Woodland Sites (PAWS) to native woodlands';
- 'Protection of veteran trees'.

These points need to be taken into account in any work recommendations for this wood.

7.3 Protected Species

7.3.1 It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981' and the 'Countryside and Rights of Way Act 2000'. Therefore, ensure that trees are professionally surveyed for signs of bird nests, bat roosts or bat activity before starting any tree work; where possible avoid carrying out tree works in the bird nesting season [end of February to end of July].

7.3.2 There are a number of European Protected Species (EPS) that need to be considered, particularly in relation to proposed tree and woodland work; these include, 17 species of Bat, Otter, Dormice, Great crested newt, Smooth snake and Sand lizard. These are protected by Habitats Regulations 1994, with further protection being added in 2007.

7.3.3 As part of the work implementation, it is vital that the presence of protected species is considered, and operations planned carefully; best practice guidance should be followed to avoid committing an offence. Licenses may also be required, depending on the type of work and time of year. More information can be found on Natural England and Forestry Commission websites.

8. Survey Limitations

8.2 Reliance has been placed upon the Topographical survey plans (REF: 29945_T) supplied to record the location of the tree cover, along with Ordnance Survey plan (Ref: 481222_636472). Some of the tree information on Tree Constraints Plan (CSA/3015/D/002) should be regarded as indicative at this stage as the areas at the south-east end of the site were missing from the original topographical survey; a full topographical survey will therefore be required for future detailed design.

8.3 Tree inspection was restricted where trees were surrounded by dense hedgerows, or heavily clad with ivy and undergrowth. These factors restricted access to measure some stem diameters accurately, so estimates have been made where necessary.

8.4 Any significant alteration to the Site that may affect the trees present (for instance changes in ground levels, tree works, extreme weather events, hydrological changes etc.) may invalidate the survey findings and could necessitate a re-assessment of the trees.

8.5 This survey is not a tree safety inspection, rather it has been undertaken to inform the planning process. However, where clear and obvious hazards have been observed, these have been identified in the Tree Schedule in Appendix A, and appropriate recommendations made.

Appendix A

Tree Schedule

Tree Survey Schedule - CSA/3015/06/S/001 **Site: Cawston Spinney** **APPENDIX A**

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
INDIVIDUAL TREES															
T1	Grey Poplar (Populus x canescens)	M	22	8	8	3	6	830	G/F	F	20-40	Situated on edge of stream line on north/western corner boundary of woodland. Good/Fair overall health and vitality. Maiden stem. Drawn form. Crown bias to the north. Dense ivy growth. Forms cohesive canopy with grey poplar to south/west.	No Work Required	B2	9.9
T2	Grey Poplar (Populus x canescens)	M	23	8	5	4	8	x2 stems - 740/630	G/F	F	20-40	Situated on edge of stream line on north/western corner boundary of woodland. X2 co dominant stems at 0.5 metres. Drawn form. Crown bias to north & west. Dense ivy growth. Past limb failures evident in upper crown. Tight included union in bifurcation point at 0.5 metres. Forms cohesive canopy with T3 to the west.	No Work Required	B2	11.7
T3	Common Ash (Fraxinus excelsior)	OM	22	8	3	7	9	1280	G/F	F	40+	Situated along north/western boundary line. Good/Fair overall health and vitality. Bifurcated at 8 metres. Maiden stem form. Crown bias to west. Past limb failure to south/west at 6 metres. Numerous small cavities in old pruning wounds.	No Work Required	A2	15
T4	Common Beech (Fagus sylvatica)	M	16	6	4	6	10	760	G	G/F	40+	Situated on south/western woodland boundary. Good overall health and vitality. Maiden stem form. Bifurcated at 5 metres. Crown bias to west. Minor root buttress flare. Numerous minor branch failures to the west with associated stubs.	No Work Required	A2	9.1
T5	Common Ash (Fraxinus excelsior)	OM	25	9	8	9	9	1270	G/F	G/F	40+	Situated on edge of track to the south. Good/Fair overall health and vitality. Trifurcated at 2 metres. Large co dominant stem at 1 metre. High crown suppressed by low understorey tree cover. Drawn stems with a tight included union at 2 metres. Past pollard at 2 metres. Bacterial canker evident on structural limbs.	No Work Required	A2	15

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T6	English Yew (Taxus baccata)	OM	10	3	6	4	3	900	G/F	G/F	40+	Situated on edge of track to the south. Notable tree within location. Good/Fair overall health and vitality. Past failure at root plate which has layered across the ground to the east. Phoenix regen of 220 dbh. Small minor deadwood on ground surrounding tree. Minor cavities. Early veteran features. Dense self sown sycamore regen suppressing re growth.	Consider staged Halo works to reduce competition from self sown trees.	A3	10.8
T7	English Yew (Taxus baccata)	OM	8	3	5	5	3	# 850	G/F	F	40+	Situated on edge of track to the south. Notable tree within location. Good/Fair overall health and vitality. Past failure at root plate which has layered across the ground to the north. Phoenix regen of 50-120 dbh. Small minor deadwood on ground surrounding tree. Early veteran features. Laetiporus sulphureus fruiting bodies on stem. Further x3 yew failed at root plate with phoenix regen stem back in woodland approx. 15 metres from woodland boundary line.	Consider staged Halo works to reduce competition from self sown trees.	A3	10.2
T8	Pedunculate Oak (Quercus robur)	M	16	5	7	7	5	#700	G	G/F	40+	Situated on edge of woodland in hedge line. Good overall health and vigour. Maiden stem which forks at 5 metres. Asymmetrical crown form with a bias to the south. Dense ivy growth.	No Work Required	A2	8.4
T9	Sweet Chestnut (Castanea sativa)	M	20	7	4	6	6	840	F	G/F	40+	Situated on west woodland boundary line. Fair overall health and vitality. Maiden stem form. Crown bias to the south. Sparse thinning upper crown. Past pruning wounds to lower main stem.	No Work Required	A2	10
T10	Pedunculate Oak (Quercus robur)	M	20+	5	6	6	10	640	G	G/F	40+	Situated on west woodland boundary line. Good/fair overall health and vigour. Maiden stem which forks at 6 metres. Asymmetrical crown form with a bias to the west. High pruned crown to the west	No Work Required	A2	7.6

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T11	Sycamore (Acer pseudoplatanus)	M	20+	6	4	4	7	750	G	G/F	40+	Set back from edge of west boundary. Generally of good/fair overall health and vigour. Maiden stem which bifurcates at 6 metres with an asymmetrical crown form bias to the west. Basal epicormics with past small diameter branch failures in upper crown.	No Work Required	A2	9
T12	Pedunculate Oak (Quercus robur)	M	18	5	4	6	9	# 660	G/F	G/F	40+	Situated on edge of western woodland boundary. Good overall health and vigour. Maiden stem which forks at 6 metres. Asymmetrical crown form with a bias to the west. Past branch failures and associated wounds with minor deadwood evident	No Work Required	A2	7.9
T13	Pedunculate Oak (Quercus robur)	M	18	5	4	6	9	720	G	G/F	40+	Situated on west boundary line. Good overall health and vigour. Maiden stem to 7 meters with an asymmetrical crown form with a bias to the west. Minor branch failures and deadwood evident throughout crown.	No Work Required	A2	8.6
T14	Pedunculate Oak (Quercus robur)	M	20	8	8	6	8	1050	G	G	40+	Situated on south/eastern woodland boundary line. Prominent individual overstorey tree. Good overall health and vitality. Maiden stem form. Bifurcated at 6 metres. Crown bias to the south/east. Deadwood in lower crown.	No Work Required	A2	12.6
T15	Pedunculate Oak (Quercus robur)	M	12	8	7	7	8	# 900	G	G/F	40+	Adjacent public right of way on pond edge. Good overall health and vitality. Maiden stem which bifurcates at 3 metres. Crown bias to north/west. Large diameter deadwood in lower crown.	No Work Required	A2	10.8
T16	Pedunculate Oak (Quercus robur)	M	20+	9	5	8	8	980	G	G/F	40+	Situated on edge of south/east boundary adjacent ponds. Good/fair health and vigour. Maiden stem which bifurcates at 4 metres. Asymmetrical crown form with a bias to the south. Pronounced root buttress flare.	No Work Required	A2	11.7

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T17	Pedunculate Oak (Quercus robur)	M	20+	8	6	10	4	1130	G/F	G/F	40+	Situated on edge of south/east boundary adjacent ponds. Good/fair health and vigour. Maiden stem which bifurcated at 8 metres. Asymmetrical crown form with a bias to the south & west. Pronounced root buttress flare.	No Work Required	A2	13.5
T18	Pedunculate Oak (Quercus robur)	M	20+	6	8	9	4	900	G	G/F	40+	Situated on edge of south/east boundary adjacent ponds. Good/fair health and vigour. Maiden stem which forks at 6 metres. Asymmetrical crown form with a bias to the south. Minor deadwood and stem epicormics	No Work Required	A2	10.8
T19	Pedunculate Oak (Quercus robur)	M	18	7	5	8	8	1000	G	G/F	40+	Set back from edge of south/east boundary by 4 metres. Good overall health and vigour. Asymmetrical crown form with a bias to the south. Minor cavities on structural branching with past branch failures and deadwood evident.	No Work Required	A2	12
T20	Common Hornbeam (Carpinus betulus)	M	12	3	9	7	3	610	G/F	G/F	40+	Set back within east woodland boundary by 2 metres. Good/fair overall health and vigour. Maiden stem to 4 metres with a gradual stem lean to the south/east. Pronounced crown bias to the south/east. Bleed on south of main stem at 2 metres. Squirrel damage on lower main stem and root buttressing.	No Work Required	A2	7.3
T21	Common Ash (Fraxinus excelsior)	M	20+	5	8	7	3	660	G/F	G/F	40+	Set back from east woodalnd edge by 4 metres. Good/fair overall health and vigour. Maiden stem which forks at 3 metres. Drawn form with an asymmetrical crown form bias to the east. Pronounced root buttress flare.	No Work Required	A2	7.9
T22	Common Ash (Fraxinus excelsior)	M	20+	7	8	8	4	700	G/F	G/F	40+	Set back from east woodalnd edge by 5 metres. Good/fair overall health and vigour. Maiden stem which forks at 5 metres. Drawn form with an asymmetrical crown form bias to the east. Dense ivy growth on main stem.	No Work Required	A2	8.4

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
T23	Sycamore (Acer pseudoplatanus)	M	20	4	10	3	10	740	G/F	G/F	40+	Situated on edge of woodland belt to the north/east. Good/Fair overall health and vitality. Maiden stem form. Crown bias heavily weighted to the east & west. Dense ivy growth on main stem. Sub dominate stem to the west at 8 metres.	No Work Required	A2	8.8
T24	Common Beech (Fagus sylvatica)	M	18	5	9	3	10	760	G/F	G/F	40+	Situated on woodland boundary to the north/east. Good/Fair overall health and vitality. Maiden stem form. Crown bias heavily weighted to north & west. Forms cohesive shared canopy with adjacent Sycamore (T10). Minor branch stubs in lower crown.	No Work Required	A2	9.1
T25	Pedunculate Oak (Quercus robur)	M	22	5	8	10	12	1000	G	G/F	40+	Situated within small copse to the north/east. Good overall health and vitality. Notable tree within copse. Maiden stem. Bifurcated at 10 metres. Crown bias to the south/west.	No Work Required	A2	12
T26	Pedunculate Oak (Quercus robur)	M	18	6	5	8	6	810	G	G/F	40+	Situated on edge of woodland boundary. Good/Fair overall health and vitality. Maiden stem form which forks at 10 metres. Asymmetrical crown with a stem and crown bias heavily to the south. Past lower crown pruning stubs and minor deadwood.	No Work Required	A2	9.7
T27	Pedunculate Oak (Quercus robur)	M	17	4	12	10	3	# 950	G/F	F	40+	Situated on edge of roadside on northern woodland boundary. Good/Fair overall health and vitality. Bifurcated at 2 metres. Crown bias heavily weighted to the north/east. Past reduction of low lateral limb to the north/east over roadside.	No Work Required	A2	11.4

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
GROUP TREES															
G1	Sycamore, Grey Poplar, Hybrid poplar, Hawthorn, Goat willow, Ash, Holly, Box, Pedunculate Oak, Hazel	EM-M	5-25					150-760	G/F	G/F	40+	Dense mixed species linear group along north/west boundary. Mixed species and age structure. Predominately overstorey Ash, Poplar & Oak with understorey Hawthorn, Hazel, Holly & Box. Drawn form with a crown bias on woodland edge trees to the north/west.	No Work Required	A2	15-20m from edge of canopy
G2	Pedunculate Oak, Ash, Wych Elm, Sycamore, Hazel, Scots pine, Yew, Box, Common Beech	EM-M	4-22					180-660	G/F	G/F	40+	Dense mixed species linear group along west boundary. Mixed species and age structure. Predominately overstorey Ash & Oak with mid storey Holly, sycamore, Yew & Box. Drawn slender form. Crown bias on edge trees to the west.	No Work Required	A2	20m from edge of canopy
G3	Scots pine, Yew, Common Beech, Box, Holly, Sycamore, Ash, Elm, Larch	EM-M	3-23					150-600	G/F	G/F	40+	Dense linear group along western boundary line. Varied age structure and species composition. Mixed broadleaves and conifer species consisting of predominately overstorey Scots pine, Common Beech, Sycamore & Oak with midstorey Yew & Holly species. Drawn slender maiden stem form. Boundary edge trees with a crown bias to the west.	No Work Required	A2	20m from edge of canopy
G4	Ash, Downy birch, Yew, Common Beech, Pedunculate oak	EM-M	4-22					140-700	G/F	G/F	40+	Small linear group on south/west boundary adjacent track. Varied age structure and species composition. Maiden & multi stemmed form. Crown bias to the south. Predominantly Beech, Oak & Ash overstorey with scattered Holly, Yew & Sycamore understorey.	No Work Required	A2	20m from edge of canopy

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
G5	Sycamore, Common Beech, Sweet Chestnut, Holly, Pedunculate Oak, Hornbeam, Yew, Hazel, Ash, hawthorn, Goat willow, Elder & Box	EM-M	5-22					120-680	G/F	G/F	40+	Dense linear group along southern woodland boundary. Varied age structure and species composition. Predominantly overstorey Ash, Sweet chestnut, Oak, Sycamore of middle mature to mature age class. Drawn suppressed form. Crown bias on woodland boundary edge trees to the south. Dense ivy growth and associated cavities on numerous trees from past pruning wounds.	No Work Required	A2	20m from edge of canopy
G6	Elm, Common Ash, Hawthorn	Y-EM	3-8					50-250	G/F	G/F	20+	Dense understorey/midstorey tree cover of varied age structure. Good/fair health and vigour. Maiden/multi stemmed form trees. Drawn slender stems with suppressed crowns due to competition for light. Occasional dead elm within group.	No Work Required	B2	15m from edge of canopy
G7	Hornbeam, Ash, Pedunculate oak, Downy birch, Hawthorn, Hazel, Sycamore	EM-MM	6-22					120-720	G/F	G/F	40+	Dense linear tree group to south/east of woodland. Varied age structure. Predominately Hornbeam of middle to mature age class with occasional Ash & Oak in overstorey. Understorey made up of Hazel & Hawthorn. Drawn maiden stem form. Crown bias on boundary edge trees to the north/east.	No Work Required	A2	15m from edge of canopy
G8	8x Pedunculate Oak	MM-M	18-20+					550-850	G/F	G/F	40+	Group of 8x Oak on edge of south/east boundary adjacent ponds. Generally of good/fair health and vigour. Maiden stem form with high crowns due to past removal of low branching over fields. Asymmetrical crown form with a bias to the south & west. Dense ivy growth on occasional trees with minor deadwood evident.	No Work Required	A2	20m from edge of canopy

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
G9	Hornbeam, Ash, Pedunculate Oak, Downy Birch, Hawthorn, Hazel, Holly, Common Beech, Hybrid Black Poplar	Y - M	3-25					100-650	G/F	G/F	40+	Linear group along south/western boundary line of woodland. Dense mixed broadleaf trees of varied age structure consisting of Hornbeam, Ash & occasional Pedunculate Oak, Common Beech & Hybrid Black Poplar forming the majority of overstorey tree cover. Understorey consists of self sown Elm, Elder, Beech & Holly with mid storey Wild Cheery & Holly. Trees are generally of drawn maiden form with past failures of mature age class Ash & Poplar adjacent ponds.	No Work Required	A2	20m from edge of canopy
G10	Hawthorn, Pedunculate Oak, Sycamore, Downy Birch, Ash, Goat Willow, Crack Willow, Scots pine, Norway Spruce, Holly, Hazel, Wild Cherry	MM-M	4-22					150-680	G/F	G/F	40+	Dense mixed broadleaf/conifer tree cover around ponds to the south of the woodland. Large proportion of overstorey consists of Pedunculate Oak & Ash with occasional Scots Pine, Norway Spruce & Downy Birch. Large clump of Mature Oak to south on fence boundary. Past failure of over mature from fence line into adjacent field to the south/east. Scattered oak and willow on edge of ponds with dense Holly, Elder & Hawthorn understorey tree cover.	No Work Required	A2	15m from edge of canopy
G11	Sycamore, Wild cherry, Yew, Norway spruce, Douglas fir, Ash, Downy birch, Holly, Pedunculate oak, Common beech	EM-MM	4-20						G/F	G/F	40+	Linear group along eastern boundary line. Varied age structure and species composition. Dominant species in overstorey consist of Sycamore & Ash with occasional Douglas fir & Norway spruce. Drawn form. Crown bias of boundary edge trees to east & north. Self sown regen in understorey comprising of Sycamore.	No Work Required	A2	20m from edge of canopy
G12	3x Common Beech	M	20+					710, 730, 790	G/F	G/F	40+	Group of 3x Beech on edge of eastern woodland boundary. Good/fair overall health and vigour. Asymmetrical crown form with a bias to the south/east. Drawn maiden stems which fork into x2 co dominant stems. Pronounced inclusion in main union of middle tree with adaptive growth forming on either side.	No Work Required	A2	15-20m from edge of canopy

No.	Species (Latin name)	Age class	Height	Crown spread :				Stem dia. (mm) / Estimated (#)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W								
G13	Douglas fir, Sycamore, Common beech, Yew, Pedunculate oak, Ash	Y-MM	3-22					100-730	G/F	G/F	40+	Dense linear group on edge of woodland to the east. Varied age structure and species composition. Predominately Douglas fir & Beech with scattered Sycamore in overstorey. Midstorey and understorey made of Yew, Ash, Oak & self sown Sycamore. Past pruning of low overhang over field resulting in high sided crown on boundary edge trees.	No Work Required	A2	20m from edge of canopy
G14	Pedunculate oak, ash, Elm, Holly, Elder, Douglas fir, Box, Laurel, Sycamore, Yew	EM-MM	4-18					100-690	G/F	G/F	40+	Dense small copse of mixed broadleaf & conifer species to the north/east. Varied age structure. Overstorey consists of Ash, Oak, Yew, Holly & Sycamore with understorey Laurel, Yew, Holly & self sown Sycamore. Drawn slender form trees throughout group.	No Work Required	A2	15m from edge of canopy
G15	Pedunculate oak, Ash, Sycamore, Yew, Hawthorn, Douglas fir, Elder	EM-M	4-23					120-720	G/F	G/F	40+	Dense mixed species group along east and north/eastern boundary line. Varied age structure and species composition. Overstorey tree cover consists of predominantly middle mature to mature Ash & Oak with scattered Douglas fir & Sycamore. Remaining trees species consisting of Elder, Yew & Hawthorn make up midstorey and understorey tree cover. Drawn form. Crown bias of boundary edge trees to east and north. Dense ivy growth on numerous trees.	No Work Required	A2	15 to 20m from edge of canopy

Appendix B

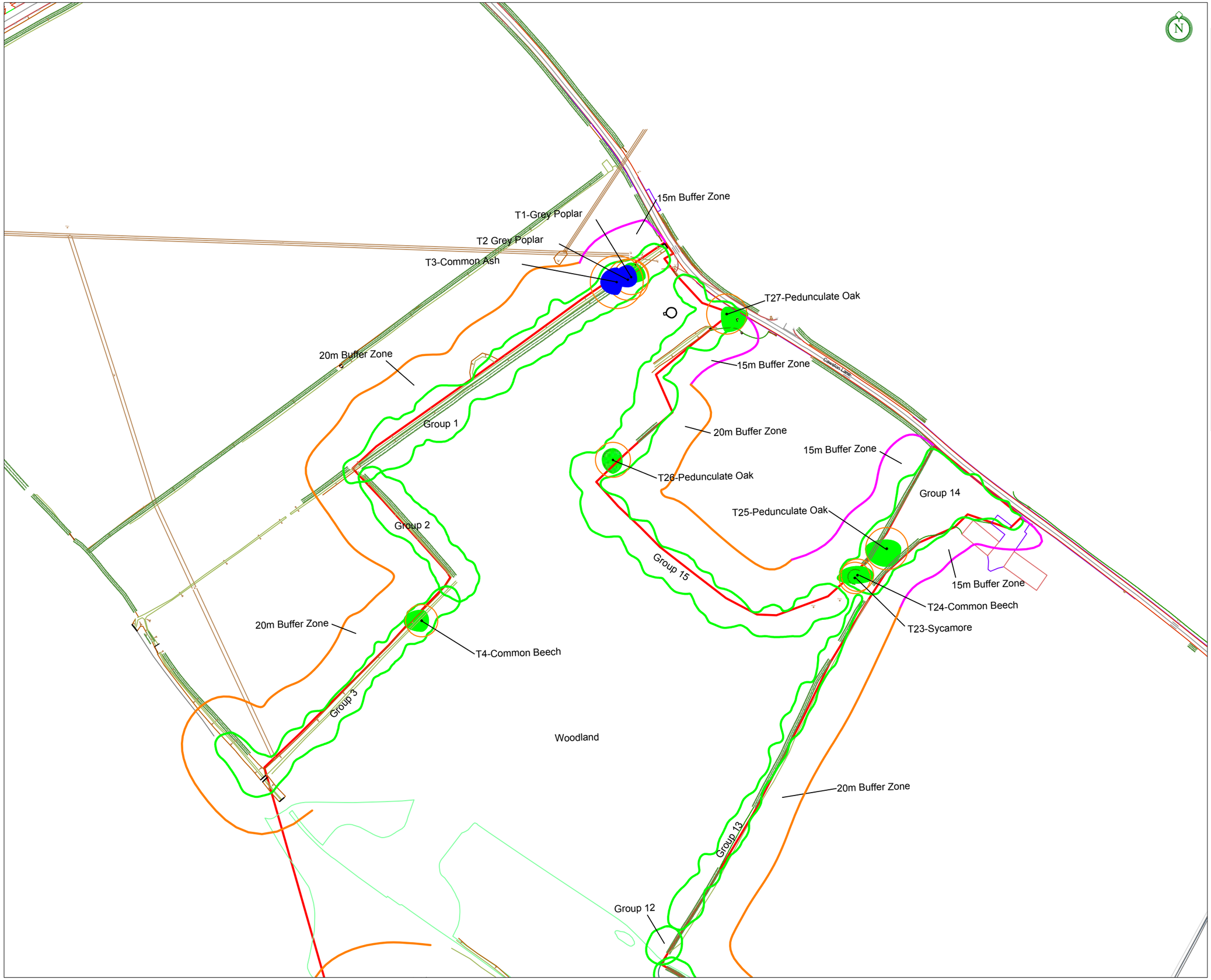
Tree Schedule – Explanatory Notes

APPENDIX B: SURVEY CRITERIA

Tree No.	Reference ID given to each tree or group of trees (unless tagged)
Species	Common name. Botanical name may be given if clarification is required
Age Class	Young, middle aged, mature or over-mature
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest part of canopy and ground level (metres)
Stem dia.	Trunk diameter/s (mm) measured at 1.5m above ground level, or other height as specified
Condition	Good, Fair, Poor or Dead based on the general physiological health and structural condition of the tree
Estimated Remaining Contribution	An estimation of the life expectancy in years, if the natural cycle of the tree is allowed to run its full course. (<10, 10-20, 20-40, 40+ years)
Comments	A brief description of the tree or group relating to its form, vitality and presence of any significant defects.
Recommendations	All tree work is based on current tree condition and the existing land use and will include work such as hazard abatement, encroachment pruning, thinning of groups/woods and good arboricultural practice.
Quality Category	Based on B.S.5837 Quality categories: **A** = Those of High Quality & Value **B** = Those of Moderate Quality & Value **C** = Those of Low Quality & Value **U** = Unsuitable for retention Subcategory values: 1) Arboricultural 2) Landscape 3) Cultural
RPA	Root Protection Area is based on stem diameter (mm) and is provided as the radius of circle measured in metres from centre of tree, or may be expressed as an area (m^2)

Appendix C

CSA/3015/06-D-001-002 - Tree Constraints Plan



KEY

Tree Categorisation:
(Tree quality assessment based on BS 5837:2012 Trees in relation to design, demolition and Construction - Recommendations)

- Crown spread of category A
  Trees/groups of high quality & value
- Crown spread of category B
  Trees/groups of moderate quality & value
- Crown spread of category C
  Tree/groups of low quality & value
- Crown spread of category U
  Trees/groups unsuitable for retention
- Root Protection Area Individual Trees (RPA)
  To be used to inform design proposals and assess potential tree impacts. It represents the minimum area around each tree that should be left undisturbed to ensure their survival.
- Woodland 20m Buffer Zone
  To be used to inform design proposals. Additional buffer zone of 20m to provide protection of areas of ancient woodland and semi natural woodland.
- Woodland 15m Buffer Zone
  To be used to inform design proposals. Buffer zone of a minimum of 15m to provide protection of semi natural woodland development in accordance with Standing Advice: ancient woodland & veteran trees: protecting them from development.
- * Approximate position
- Survey boundary

NOTE 1:
To be read in conjunction with tree schedule (TWC1207-S-001).
NOTE 2:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Tree Constraints Plan (North)
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/06
Drawing No:	CSA/3015/06-D-001
Rev:	A
Scale:	1:2000 @ A3
Date:	05.07.18
Drawn:	JW
Checked:	ABS
Figure No:	-

CSA environmental

thetreeandwoodland COMPANY

6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

T7-English Yew
T9-Sweet Chestnut
T10-Pedunculate Oak
T5-Common Ash
Group 4
Woodland
Group 11
20m Buffer Zone
T6-English Yew
T8-Pedunculate Oak
T11-Sycamore
Group 5
T12-Pedunculate Oak
20m Buffer Zone
T13-Pedunculate Oak
20m Buffer Zone
15m Buffer Zone
15m Buffer Zone
Group 6
T14-Pedunculate Oak
T22-Common Ash
T21-Common Ash
T20-Hornbeam
Group 10
Boon House Spinney
Ponds
20m Buffer Zone
Group 9 *
Group 7*
Ponds
15m Buffer Zone
T15-Pedunculate Oak *
Group 8 *
T19-Pedunculate Oak *
T18-Pedunculate Oak *
T16-Pedunculate Oak *
T17-Pedunculate Oak *

KEY

Tree Categorisation:
(Tree quality assessment based on BS 5837:2012 Trees in relation to design, demolition and Construction - Recommendations)

- Crown spread of category A
  Trees/groups of high quality & value
- Crown spread of category B
  Trees/groups of moderate quality & value
- Crown spread of category C
  Tree/groups of low quality & value
- Crown spread of category U
  Trees/groups unsuitable for retention
- Root Protection Area Individual Trees (RPA)
  To be used to inform design proposals and assess potential tree impacts.
  It represents the minimum area around each tree that should be left undisturbed to ensure their survival.
- Woodland 20m Buffer Zone
  To be used to inform design proposals. Additional buffer zone of 20m to provide protection of areas of ancient woodland and semi natural woodland.
- Woodland 15m Buffer Zone
  To be used to inform design proposals. Buffer zone of a minimum of 15m to provide protection of semi natural woodland development in accordance with Standing Advice: ancient woodland & veteran trees: protecting them from development.
- * Approximate position
- Survey boundary

NOTE 1:
To be read in conjunction with tree schedule (TWC1207-S-001).
NOTE 2:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Tree Constraints Plan (South)
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/06
Drawing No:	CSA/3015/06-D-002
Rev:	A
Scale:	1:2000 @ A3
Date:	05.07.18
Drawn:	JW
Checked:	ABS
Figure No:	-

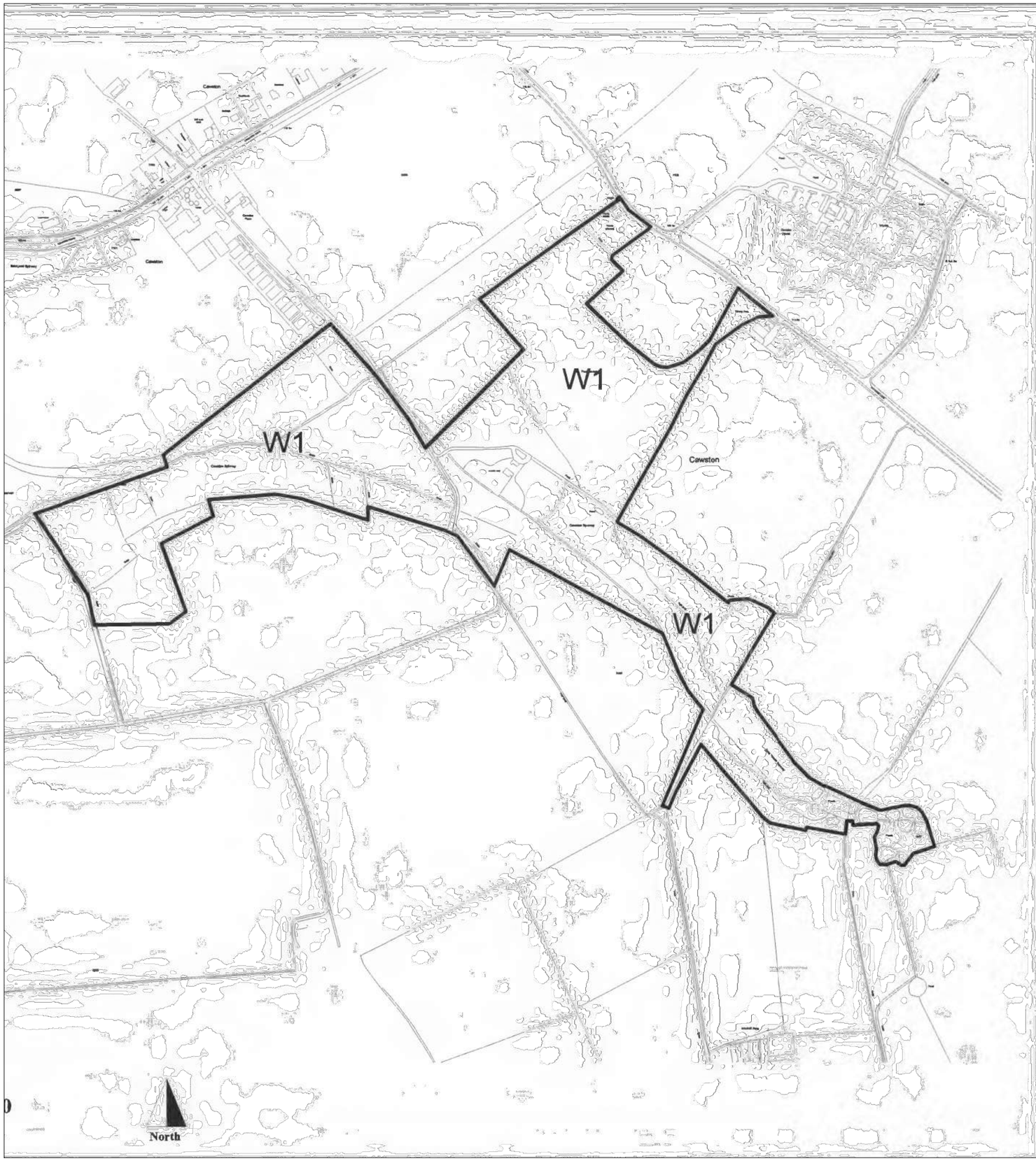
6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

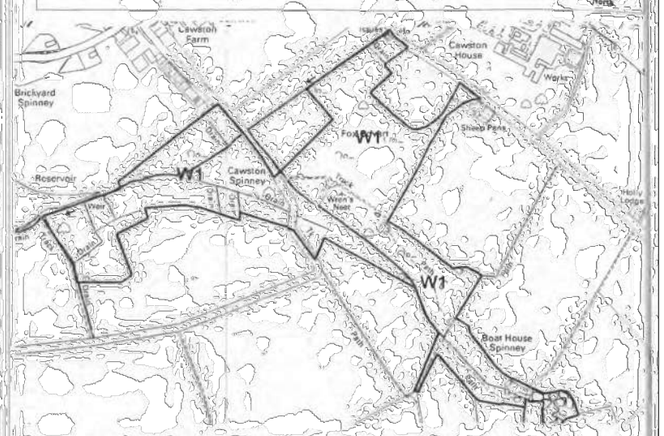
Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

Appendix D

CSA/3015/06-D-003 - Tree Preservation Order



Location Plan **Scale 1:10,000**



TREE PRESERVATION ORDER

Number T. R.	Date
TR4.55	10/10/2005

Location Cawston Woods
Dunchurch, Rugby

W1 - Mixed species consisting of :-

Ash, Sycamore, Beech, Oak, Larch, Silver Birch

Spruce, Yew, Holly, Pine, Hazel, Hawthorn

PLANNING SERVICES

TECHNICAL SERVICES DEPARTMENT
Town Hall, Rugby. CV21 2RR
John Ware, B.A., M.C.D., Dip. L.A., Head of Planning Services
Tel.No. (01788) 533533
Fax.No.(01788) 533778

BOROUGH RUGBY COUNCIL

KEY

Boundary of Woodland TPO order.

NOTES 1:
To be read in conjunction with Arboricultural Report (CSA/3105/07).

NOTES 2:
Image copyright of Rugby Borough Council.

REVISIONS

REV:	Date:	Description:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Cawston Spinney TPO Plan (Appendix D)
Client:	Gallagher Estates Ltd
Project No:	CSA/3015/06
Drawing No:	CSA/3015/06-D-003
Rev:	-
Scale:	Not to scale
Date:	26.06.18
Drawn:	JW
Checked:	ABS

CSA environmental

thetreeandwoodland COMPANY

6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

Appendix E

CSA/3015/06-D-001-004 – ASNW Map

KEY

Area indicated as Ancient Semi Natural Woodland (ASNW)

NOTES 1:
To be read in conjunction with Arboricultural Report (CSA/3105/06).

NOTES 2:
Image copyright of Magic Map.

REVISIONS

REV:	Date:	Description:

PROJECT INFO

Project:	Cawston Spinney, Rugby
Title:	Magic Map ASNW Plan (Appendix E)
Client:	Gallagher Estates Ltd
Project No:	CAS/3015/06
Drawing No:	CSA/3015-D-003
Rev:	-
Scale:	Not to scale
Date:	18.06.18
Drawn:	JW
Checked:	ABS

6c Southfield Road
Southam
Warwickshire
CV47 0FB

Tel: 01926 810 023

Email: enquiries@treeandwoodland.co.uk
Web: www.treeandwoodland.co.uk

Appendix F

Cascade Chart for Tree Quality Assessment (BS5837:2012)

Tree Quality Categorisation

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. p.9

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Appendix 4
Cawston Spinney/Cawston Fox Covert NVC Survey (RT Ecology)

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RICHARD TOFTS ECOLOGY

WOODLAND AT CAWSTON, WARWICKSHIRE

VEGETATION SURVEY

Prepared on behalf of db Symmetry and Gallagher Estates

June 2018

WOODLAND AT CAWSTON, WARWICKSHIRE

VEGETATION SURVEY

JUNE 2018

Prepared on behalf of
db Symmetry and Gallagher Estates

Richard Tofts Ecology
Elmcroft
Redhill Road
Ross on Wye
Herefordshire. HR9 5AU

T 01989 565560
E richard@rtecology.co.uk

CONTENTS

1.0 INTRODUCTION

1.1 This report has been prepared by *Richard Tofts Ecology Ltd* for CSa Environmental on behalf of db Symmetry and Gallagher Estates. It sets out the results of a vegetation survey of woodland at Cawston, Warwickshire. The site is situated some 3km south-west of the centre of Rugby, around OS grid reference SP471726.

1.2 A management plan is to be prepared for the woodland. The vegetation survey was commissioned to provide some of the baseline information to inform the management plan.

2.0 METHODS

Data collection

2.1 The methods adopted in the National Vegetation Classification (NVC – Rodwell, 1991) were used for data collection. Essentially, this involved walking the site and mapping visually homogeneous stands of vegetation onto a base plan.

2.2 The plant species within quadrats of appropriate size (see Rodwell, *op. cit*.) located in the stands of homogeneous vegetation were then recorded, together with their abundance/cover according to the Domin Scale (Table 1). Five quadrats were recorded within each identified vegetation type except where the small extent of the stand(s) made this impractical. In the event, the vegetation within sixteen quadrats was recorded.

2.3 It was sometimes not possible to use square quadrats on account of the spatial extent of the plant community in which case an appropriate area of a different shape was estimated. Scientific names of plants follow Stace (2010). GPS coordinates of each quadrat were recorded.

Domin Value	Cover/abundance	Domin Value	Cover/abundance
1	Few individuals but < 4% cover	6	26-33% cover
2	Several individuals but < 4% cover	7	34-50% cover
3	Many individuals but < 4% cover	8	51-75% cover
4	4-10% cover	9	76-90% cover
5	11-25% cover	10	91-100% cover

Table 1: Domin scale

2.4 The survey and assessment was undertaken by Dr Richard Tofts MCIEEM, the survey being undertaken on June 4th & 5th, 2018.

Data analysis and interpretation

2.5 The quadrat data were analysed using the computer programme MAVIS[1] as part of the initial data analysis.

2.6 The results of the computer-based analysis were not accepted uncritically, but the vegetation types identified in this way were compared with the vegetation tables and community descriptions in Rodwell (1991).

2.7 Vegetation may vary continuously and does not necessarily organise itself into simple and discrete categories. The vegetation in any particular place may show affinities with several different NVC community types and may not match up well with published floristic tables for any single plant community. It can therefore be difficult to match a local vegetation type to an NVC category in an unambiguous way. The initial analysis undertaken here using MAVIS was considered to be an appropriate way of minimising any arbitrary decisions concerning the NVC affinities of the vegetation, but the ultimate decision on how best to categorise the vegetation was made by the surveyor.

[1] Available from the Centre for Ecology and Hydrology: http://www.ceh.ac.uk/products/software/CEHSoftware-MAVIS.htm

2.8 In some cases the surveyor's judgement accorded with the results of the MAVIS analysis and in other cases it did not. The reasoning behind the conclusions about the different vegetation types is given in Section 4 of this report.

2.9 In addition to the vegetation data, other incidental observations were recorded and are reported in the following text where relevant to the task of informing a management plan.

3.0 RESULTS

General description of site and vegetation

3.1 The woodland occupies a minor valley close to its southern edge, with the lowest-lying land (at the south-western tip) being at some 100m a.s.l. where the woodland stream runs into a small reservoir. The land rises to a local plateau in the northern part where the ground is some 115m a.s.l.. Conditions underfoot range from damp and locally waterlogged in the lower parts to dry and freely-draining.

3.2 The woodland evidently has a complex history. Much of it is identified as Ancient Woodland (AW – pre 1600 woodland) on the MAGIC website, the exceptions being a large block of woodland ('Fox Covert') in the north-eastern part, a small block of wood at the northern-most tip (beside Cawston Lane), another small block at the south-western tip and the arm of woodland at the south-eastern tip marked on the OS maps as 'Boat House Spinney'. There is also a strip of planted trees and shrubs including black poplar *Populus nigra* cultivars and white willow *Salix alba* along the northern edge of the reservoir at the western tip of the site. The AW status of the remainder has almost certainly been inferred from recorded presence of woodland on the first series Ordnance Survey maps, a helpful indication but by no means infallible.

3.3 The earliest map examined as part of the present study is the 6 inch OS map from 1886. By this time, the woodland covered its full current extent apart from a section at the south-western end of Fox Covert which was unwooded and apparently occupied by two fields[2] and a tiny section of the north-central area which is shown as unwooded on the 1938 map but is now occupied by trees including planted poplars.

3.4 The 1886 OS map shows the woodland as mixed coniferous and broadleaved. The mapmakers of this period tended to be sensitive to different kinds of woodland cover and the widescale indication of conifers and broadleaved trees is considered likely to reflect the true situation on the ground at that time.

3.5 The name 'Fox Covert' suggests a man-made origin in historic times, a conclusion supported by its omission from the AW map on the MAGIC website. But the name 'Cawston Spinney' is not particularly indicative of an ancient origin, a spinney being a 'place of thorns' (Rackham, 2003). In any event, the likelihood of the woodland being widely occupied by conifers as well as broadleaved species suggests extensive modification of the vegetation by humans at least as far back as Victorian times.

3.6 Currently, the cover of conifers is fairly limited, the most obvious exceptions being a stand of yew *Taxus baccata* in Fox covert. The bulk of the canopy is formed by sycamore *Acer pseudoplatanus* and ash *Fraxinus excelsior* with locally prominent beech *Fagus sylvatica*, hornbeam *Carpinus betulus* and other trees. The ash persists even into the wetter areas although planted poplar cultivars feature prominently in these locations. Sycamore is widely regenerating over most of the wood and ash is also regenerating freely. Pedunculate oak *Quercus robur* occurs, but normally as a minor component of the canopy. This appears to contrast with the situation in the past, because old, large and substantially decayed oak stumps are widely distributed across the wood (e.g. see Figure 1, overleaf) and point to a time many decades ago when oak was a major canopy component. Oak does not appear to be regenerating within the wood today.

[2] This area is still shown as unwooded in the 1903 edition but, by 1923, is indicated as woodland.

3.7 Parts of the woodland are well-used for informal recreation. This has led to soil compaction and the lack of a field layer in the more heavily-used parts.

Figure 1: One of many old oak stumps, dating back decades to a period when an oak timber crop was removed from the woodland.

3.8 The canopy does not appear to reflect the underlying conditions in a very marked way, but instead largely seems to reflect past management choices.

3.9 The shrub layer is poorly-developed over much of the wood, although box *Buxus sempervirens* is locally dense and rhododendron *Rhododendron ponticum* is also locally very dense, especially in the western part (Figure 2).

Figure 2: Rhododendron forms locally dense stands, particularly in the western part of the wood.

3.10 The field layer does, however, show a clearer relationship with the soil conditions. Five main types of vegetation were recognised for the purposes of this survey, most being defined with reference to the field layer although a correlation with the canopy and shrub layers was noted in some cases. In brief, the types are:

- Vegetation on rather moist soil, rich in species indicative of high nutrient levels and perhaps more recent disturbance (vegetation type 1) including common stinging nettle *Urtica dioica*, cleavers *Galium aparine*, rough-stalked meadow-grass *Poa trivialis*, elder *Sambucus nigra*, wych elm *Ulmus glabra* and ivy *Hedera helix*.
- Vegetation mostly on moist soils (vegetation type 2) dominated by dog's mercury *Mercurialis perennis* with primrose *Primula vulgaris* and bugle *Ajuga reptans* in the more moist places.
- Vegetation with a field layer dominated by a mixture of bluebell *Hyacinthoides non-scripta* and bramble *Rubus fruticosus* agg. (vegetation type 3), the latter being absent from some small areas (vegetation type 3a).
- Vegetation dominated by bracken *Pteridium aquilinum* on a freely-draining and more sandy substrate (vegetation type 4).
- Vegetation with a field layer dominated by bluebell but generally lacking bramble and with beech *Fagus sylvatica* as the clear canopy dominant (vegetation type 5).

3.11 In addition to these five types, there is a block of planted yew *Taxus baccata* without associated species in the central part of Fox Covert. This feature seems clearly to be of planted origin and as an artificial feature, it is not considered in detail here.

3.12 The five main vegetation types are described in more detail in the following text (paragraphs 3.16-3.21).

3.13 In terms of structure, few signs of former coppice were observed. A holly *Ilex aquifolium* pollard was noted in the northern part of the wood. Much windthrow was evident in the southern part of the wood, some badly decayed trees and others being of much more recent origin (Figures 3 and 4).

Figure 3: Group of fallen trees, now substantially decayed.

Figure 4: Recent windthrow.

3.14 The dead wood resource is a rich habitat and a varied range of fungi was observed (e.g see Figure 5, overleaf) including *Ganoderma applanatum*[3], *Daldinia concentrica*, *Xylaria hypoxylon*, *Xylaria polymorpha* and *Pluteus cervinus*. Other fungi include *Mycena pura*, growing amongst leaf litter under beech. A standing dead trunk was also found to be occupied by an active nest of great spotted woodpecker *Dendrocopus major* (Figure 6, overleaf)

[3] Identity confirmed from microscopic examination of spores (6.5-7.5 x 5-5.5 µm), not the more common *Ganoderma australe*.

Figure 5: Decayed log supporting a range of fungi including *Ganoderma applanatum*.

Figure 6: Dead standing wood, occupied by an active great spotted woodpecker nest at the time of the survey.

3.15 The main vegetation types identified within the woodland are described below.

Vegetation type 1 (W8e)

3.16 This occurs in two areas which are clearly of secondary origin[4], one at the northern tip of the wood adjacent to Cawston Lane (the centre of which contains a brick-built structure) and the other at the south-western tip in a location that has been excavated to a level well below that of the surrounding land and may represent a former brick pit. Both areas now support mature trees. The field layer is characterised by rank growth of stinging nettle, cleavers, rough-stalked meadow-grass and ivy, with cow parsley *Anthriscus sylvestris* being conspicuous in areas where the canopy is more open. Woody species are broadly the same as occurring elsewhere within the wood but tend to include greater cover and frequency of wych elm and elder than in other parts of the wood. The MAVIS analysis suggested affinities with three main community types (W6, W8 and W21 - see Table 2). This vegetation is identified with the W8e subcommunity of the NVC (see Discussion). A typical view is shown at Figure 7.

NVC: W8e 42.35	NVC: W21 29.60
NVC: W8f 40.24	NVC: W6a 29.41
NVC: W21b 32.90	NVC: W8g 29.14
NVC: W8b 31.82	NVC: W8d 28.93
NVC: W21a 31.62	NVC: W6 28.50

Table 2: NVC affinities of vegetation type 1, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Figure 7: Vegetation type 1, showing dense growth of ivy and stinging nettle in the field layer. This is identified with the W8e subcommunity of the NVC.

[4] Neither is identified as Ancient Woodland on the MAGIC website.

Vegetation type 2 (W8a)

3.17 This vegetation type is characterised by the clear dominance of ash in the canopy with reduced amounts of sycamore and wych elm compared with vegetation type 1. There is plentiful elder (although at reduced cover compared with vegetation type 1) and box in the shrub layer and abundant and constant dog's mercury and rough-stalked meadow-grass in the field layer. It tends to occur in the lower-lying areas along the minor valley in the southern part of the site and in small areas of the northern part of the site. The MAVIS analysis suggested affinities with four main community types (W6, W8, W12 and W21 - see Table 3). It is identified with the W8a subcommunity of the NVC (see Discussion). A typical view is shown at Figure 8.

NVC: W8e 54.95	NVC: W8f 50.76
NVC: W8d 53.99	NVC: W8b 50.71
NVC: W12a 53.99	NVC: W12 50.21
NVC: W8 53.04	**NVC: W8a 49.29**
NVC: W21b 51.25	NVC: W6d 45.82

Table 3: NVC affinities of vegetation type 2, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Figure 8: Vegetation type 2, showing dense cover of dog's mercury in the field layer. This is identified with the W8a subcommunity of the NVC.

Vegetation type 3 (W10)

3.18 This is characterised by the constancy of ash and sycamore in the canopy, sycamore regeneration and holly *Ilex aquifolium* in the shrub layer and bramble, bluebell and sycamore seedlings in the field layer. Pedunculate oak and beech are also frequent in the canopy, with box, elder, hazel, common hawthorn and sometimes rhododendron in the shrub layer. The MAVIS analysis suggested affinities with three main community types (W8, W10 and W12 - see Table4, overleaf). It is identified with the W10 community of the NVC (see Discussion). A typical view is shown at Figure 9, overleaf.

NVC: W12a 47.15	NVC: W10a 44.79
NVC: W10 46.68	NVC: W10b 42.07
NVC: W8d 45.81	NVC: W8e 41.64
NVC: W10c 45.70	NVC: W8b 41.31
NVC: W12 44.80	NVC: W12c 41.28

Table 4: NVC affinities of vegetation type 3, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Figure 9: Vegetation type 3, showing dense cover of bramble with the remains of bluebell still just visble in the field layer (pale stalks) after flowering and setting seed. This vegetation type is identified with the W10 community of the NVC.

Vegetation type 3a (W10)

3.19 This vegetation type is similar to type 3 and grades into it. The field layer is similar to that of vegetation type 5, but the present community lacks the overwhelming dominance of beech that is characteristic of the latter. The MAVIS analysis suggested affinities with five main community types (W6, W8, W9, W10 and W12 - see Table 5). It is identified with the W10 community of the NVC (see Discussion), although does perhaps function as something of a transition to the W8 community of vegetation types 1 and 2.

NVC: W8e 25.94	**NVC: W10 22.18**
NVC: W8d 25.72	NVC: W8 21.18
NVC: W10e 24.58	NVC: W9a 21.17
NVC: W12a 24.39	NVC: W8b 20.94
NVC: W10b 23.49	NVC: W6e 20.64

Table 5: NVC affinities of vegetation type 3a, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Vegetation type 4 (W10)

3.20 This occurs in a small part of the eastern arm of the wood where bracken and bramble dominate the field layer, the shrub layer is virtually non-existent and the canopy includes substantial cover resulting from past conifer planting which is now mature. The MAVIS analysis suggested affinities with five main community types (W6, W10, W14, W21 and W25 - see Table 6). It is identified with the W10 community of the NVC (see Discussion). A typical view is shown at Figure 10.

NVC: W10d 33.04	NVC: W10b 28.38
NVC: W10c 31.96	NVC: W25a 28.34
NVC: W10 31.45	NVC: W25 28.03
NVC: W10a 31.30	NVC: W6d 27.21
NVC: W14 28.45	NVC: W21a 27.12

Table 6: NVC affinities of vegetation type 4, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Figure 10: Vegetation type 4, showing dominance of bracken in the field layer. This vegetation type is identified with the W10 community of the NVC.

Vegetation type 5 (W14)

3.21 This vegetation type is characterised by the clear dominance of beech, either as the sole canopy-forming tree or with lesser amounts of other trees including pedunculate oak. Bluebell is the clear field layer dominant and the shrub layer is poorly-developed although holly is present in places. Elder only occurs in locations around the periphery, especially where light levels are greater. The MAVIS analysis suggested affinities with four main community types (W10, W12, W14 and W15 - see Table 7, overleaf). It is identified with the W14 community of the NVC (see Discussion). A typical view is shown at Figure 11, overleaf.

NVC: W14 38.78	NVC: W15 32.52
NVC: W12a 36.92	NVC: W10 31.03
NVC: W12 34.31	NVC: W12b 30.46
NVC: W10c 33.99	NVC: W12c 30.34
NVC: W10a 32.84	NVC: W15a 29.54

Table 7: NVC affinities of vegetation type 4, as identified by MAVIS. The numbers after the community type represent the percentage similarity compared with the tables published in Rodwell (1991). Bold type face indicates the interpretation adopted here.

Figure 11: Vegetation type 5, showing dense cover of beech with sparse understorey of holly and the remains of bluebell still visble in the field layer after flowering and setting seed. Bramble also occurs as a field layer component in places. This vegetation type is identified with the W14 community of the NVC.

4.0 DISCUSSION AND CONCLUSIONS

4.1 The woodland types show a reasonably broad range of variation, some of which clearly relates to edaphic or other environmental conditions but some variation inevitably reflects past management practices and other historical contingencies.

4.2 In terms of the NVC communities, the woodland vegetation encompasses communities that align clearly with those of the W8 woodlands and others whose affinities lie with the W10 woodlands. Examples of the former are seen along the north-western edge where the woodland is entered from Cawston Lane and examples of the latter include the more bracken-rich woodland along the north-eastern edge. But much of the woodland lies between these two extremes and the communities show some affinities with both woodland types. This is a common occurrence (see e.g. Hall *et al*., 2004) and an element of judgement has therefore been applied in the following analysis.

4.3 Taken at community level, the MAVIS analysis of vegetation type 1 suggests affinities with NVC communities W6, W8 and W21 (see Table 2). The latter suggestion is dismissed as incorrect since it is a scrub (rather than woodland) community and is similar to the present vegetation at only the most superficial level. The W6 community is in some ways similar to vegetation type 1, but the lack of alder *Alnus glutinosa* (only one alder was observed – on the extreme south-western edge of the wood) and very low frequency and cover of willows *Salix* spp indicates that the true affinities lie elsewhere. The abundance of ash coupled with the geographic location are strongly suggestive of the W8 woodlands and the abundance and frequency of sycamore, elder, common stinging nettle, cleavers and other species indicative of moderate to high nutrient status are taken to indicate the W8e subcommunity. The frequency of herb Robert further reinforces this conclusion. This subcommunity is more typical of north-west Britain but does occur throughout including places in Kent and elsewhere in southern England.

4.4 At community level, the MAVIS analysis of vegetation type 2 suggests affinities with NVC communities W6, W8, W12 and W21 (see Table 3). The W21 and W6 communities are dismissed for the reasons given above. Similarities to the W12 community are also regarded as superficial because the vegetation is not characterised by a 'great preeminence of *Fagus sylvatica* [beech]' (Rodwell, p217) despite the constancy and abundance of dog's mercury which is a characteristic member of the field layer in W12 woodlands. Instead, the abundance of ash in the canopy together with a field layer of constant dog's mercury and rough-stalked meadow-grass are regarded as indicative of a W8 woodland. This vegetation seems more difficult to assign to any particular subcommunity, but on balance, the presence of reduced amounts of sycamore and elder, the lack of wych elm, reduced amounts of stinging nettle, cleavers and herb Robert, plus presence of some oak (probably reduced in cover since some point in the twentieth century on account of selective felling) and hazel in comparison with vegetation type 1 are suggestive of W8a, the interpretation which is followed here.

4.5 The MAVIS analysis of vegetation type 3 suggests affinities with three community types: W8, W10 and W12 (see Table 4). Beech is more frequent in this vegetation type than the previous two, but it is still nowhere near preeminent and dog's mercury is lacking so the vegetation is not considered to have significant affinities with the W12 woodlands. Although ash and sycamore are still canopy constants, the trees are more varied, including pedunculate oak and sweet chestnut *Castanea sativa*. The shrub layer also includes a varied range of species including some rhododendron. The field layer is clearly dominated by bramble and bluebell and the overall impression is of a community involving species indicative of less base-rich conditions than either of the previous two, an impression increased by the occasional encroachment (outside the quadrats reported

here) of bracken *Pteridium aquilinum* into the field layer. So the main affinities are considered to lie with the W10 rather than W8 woodlands although this vegetation type is in some ways intermediate between W8 and W10 and no attempt is made to 'shoehorn' the vegetation into one of the pre-existing W10 subcommunities which all offer a rather poor fit for various reasons. Vegetation type 3a (see Table 5) is considered to be essentially the same, but is marked by an absence of the bramble that characterises vegetation type 3.

4.6 Vegetation type 4 is more obviously influenced by human intervention since the canopy includes a substantial coniferous element, but the affinities of the vegetation appear clearly to lie with vegetation type 3 (see Table 6) although on an even more base-impoverished substrate where bracken is co-dominant with bramble in the field layer. The MAVIS analysis suggests affinities with the W6, W14, W21 and W25 communties as well as with W10. But W10 woodland is considered to be the correct interpretation since the vegetation is not characterised by alder, willows or stinging nettle (W6) or by beech (W14). Neither is it scrub (W21 and W25). No attempt is made to establish subcommunity affinities on account of the small area involved and the absence of many of the typical distinguishing species such as Yorkshire fog.

4.7 Vegetation type 5 is characterised by overwhelming dominance of beech with a rather poor shrub layer and a field layer of bluebell, sometimes with abundant ash seedlings. The MAVIS analysis suggests affinities with the W10, W12, W14 and W15 community types. Although beech occurs quite widely across the woodland as a whole, this is often either as lines of planted trees that have since become incorporated into the wood or in areas where the abundance of beech fluctuates in a continuous manner and appears to be quite uncorrelated with changes in the field layer or shrubs. In such cases, this is just treated as falling within the range of variation of the main woodland type (mostly W10 but in some cases W8) since beech can be found in both these communties. But in the case of vegetation type 5, the dominance of beech is overwhelming and is associated with a field layer where bluebell and tree seedlings are very prominent. It is therefore regarded as an example of 'beech woodland' and the MAVIS suggestion of W10 woodland is not accepted. It is difficult to identify the NVC affinities of this vegetation type further without ambiguity on account of the rather small areas involved, but the presence of moderate amounts of holly in one of the quadrats and the presence of bramble (outside but in close proximity to the ground flora quadrats) is taken to be indicative of W14 woodland. By contrast, the W12 woodlands are characteristic of more base-enriched conditions than appear to prevail here (with dog's mercury being a field layer constant) and W12 is 'essentially a community of limestone scarplands' (Rodwell, 1991: p223). At the other extreme, the W15 woodlands are typical of more base-poor infertile soils with bracken, wavy hair-grass *Deschampsia flexuosa* and the mosses *Dicranella heteromalla* and *Mnium hornum* being constants (the latter moss was only seen here on the otherwise bare soil around the bases of the beech trunks). On balance, the W14 woodland type is therefore considered to be the best fit. It may be significant that the quadrat which lacks holly in the shrub layer (Q16) occupies land that is shown as becoming wooded only at some point between 1903 and 1923. In woodland terms, this is a fairly recently established community and a lack of some of the species that might normally characterise it is therefore not unexpected.

4.8 The yew-dominated area of Fox Covert has not been dealt with in detail here because it is extremely species-poor and of artificial origin. It corresponds poorly to the yew woodland (W13) of the NVC (Rodwell, 1991) since the latter is characteristic of moderate to steep usually south-facing rendzinas.

4.9 The density of the shrub layer in parts of the woodland (particularly in the south-western 'arm' and in parts of the south-east close to the stream) made detailed examination difficult and the heavy shade cast by rhododendron and box has evidently hindered the development of the field layer, thus eliminating a major indication of the NVC affinities of the vegetation. It is possible that the woodland supports a more complex mosaic of vegetation than indicated on the vegetation plan in these parts of the wood but detailed investigation would only be practical after clearance of invasive stands of rhododendron.

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Rodwell, J. S. (ed.) 1991. British Plant Communities. Volume 1: Woodland and Scrub. Cambridge University Press, Cambridge.

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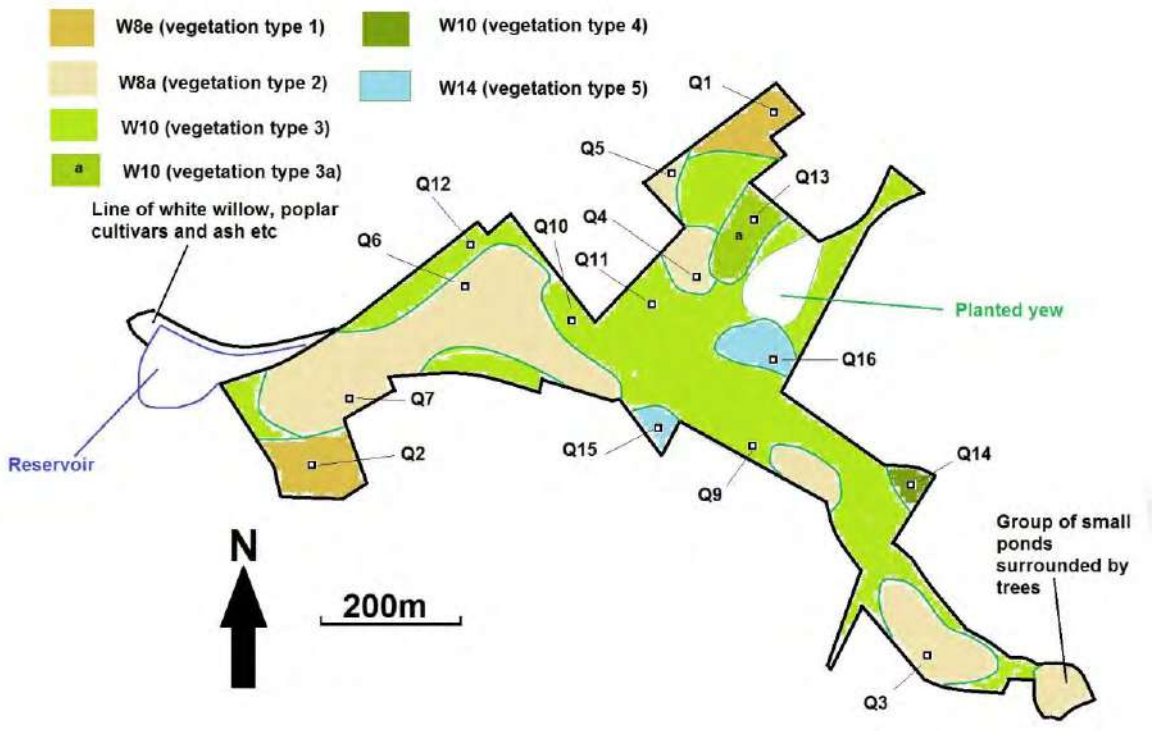
Appendix 1: Sketch Plan



Sketch plan of community types. Approximate quadrat locations (Q1-Q16) are indicated. See quadrat data (Appendix 2) for grid references.

Appendix 2: Quadrat data

Vegetation type 1 (W8e)

Species	Quadrat	
	1	2
Acer pseudoplatanus	6	8
Fraxinus excelsior	6	5
Ulmus glabra	-	4
Populus canescens	5	-
Sambucus nigra	5	5
Buxus sempervirens	3	5
Rhododendron ponticum	3	-
Salix cinerea	1	-
Acer pseudoplatanus	2	-
Fraxinus excelsior	1	-
Crataegus monogyna	-	1
Urtica dioica	9	5
Hedera helix	7	9
Thamnobryum alopecurum	-	9
Geranium robertianum	5	4
Galium aparine	5	3
Glechoma hederacea	5	-
Arum maculatum	1	3
Geum urbanum	1	-
Eurhynchium praelongum	5	7
Silene dioica	1	-
Acer pseudoplatanus (seedling)	-	1

Grid references:
Quadrat 1: SP4732972930
Quadrat 2: SP4675372461

Vegetation type 2 (W8a)

Species	Quadrat					Constancy	Range
	3	4	5	6	7		
Fraxinus excelsior	7	1	8	8	6	V	(1-8)
Acer pseudoplatanus	-	10	-	-	8	II	(8-10)
Populus nigra cv	-	-	4	4	-	II	(4)
Quercus robur	4	-	4	-	-	II	(4)
Carpinus betulus	5	-	-	-	-	I	(5)
Betula pendula x pubescens	-	1	-	-	-	I	(1)
Fagus sylvatica	-	1	-	-	-	I	(1)
Sambucus nigra	1	4	1	4	4	V	(1-4)
Buxus sempervirens	8	-	4	5	9	IV	(4-9)
Corylus avellana	-	-	1	5	4	III	(1-5)
Crataegus monogyna	1	-	5	-	-	II	(1-5)
Fraxinus excelsior	-	4	-	-	-	I	(4)
Ilex aquifolium	-	-	-	-	4	I	(4)
Prunus spinosa	3	-	-	-	-	I	(3)
Taxus baccata	-	-	-	-	4	I	(4)
Mercurialis perennis	9	10	9	8	10	V	(8-10)
Poa trivialis	3	1	3	9	-	IV	(1-9)
Urtica dioica	-	3	4	3	-	III	(3-4)
Galium aparine	4	1	4	-	-	III	(1-4)
Veronica montana	3	-	3	1	-	III	(1-3)
Hyacinthoides non-scripta	4	-	1	-	-	II	(1-4)
Eurhynchium praelongum	9	-	-	-	7	II	(7-9)
Hedera helix	4	-	-	-	4	II	(4)
Plagiomnium undulatum	4	-	-	-	4	II	(4)
Glechoma hederacea	-	-	3	3	-	II	(3)
Circaea lutetiana	-	-	3	1	-	II	(1-3)
Acer pseudoplatanus (seedling)	-	1	-	-	1	II	(1)
Silene dioica	1	-	1	-	-	II	(1)
Ribes rubrum (seedling)	-	-	-	4	-	I	(4)
Rubus fruticosus agg.	4	-	-	-	-	I	(4)
Ajuga reptans	-	-	3	-	-	I	(3)
Arum maculatum	3	-	-	-	-	I	(3)
Geranium robertianum	-	-	2	-	-	I	(2)
Buxus sempervirens (seedling)	2	-	-	-	-	I	(2)
Fraxinus excelsior (seedling)	-	1	-	-	-	I	(1)
Geum urbanum	-	1	-	-	-	I	(1)
Ilex aquifolium (seedling)	-	-	-	-	1	I	(1)
Milium effusum	1	-	-	-	-	I	(1)
Rumex sp.	1	-	-	-	-	I	(1)
Viola odorata	-	-	-	-	1	I	(1)
Hedera helix (climber)	-	-	3	4	3		

Grid references:
Quadrat 3: SP4754572218
Quadrat 4: SP4728072724
Quadrat 5: SP4719972870
Quadrat 6: SP4692972695
Quadrat 7: SP4687472609

Vegetation type 3 (W10)

Species	Quadrat					Constancy	Range
	8	9	10	11	12		
Acer pseudoplatanus	7	7	4	9	6	V	(4-9)
Fraxinus excelsior	7	7	5	4	7	V	(4-7)
Fagus sylvatica	-	5	7	4	-	III	(4-7)
Quercus robur	5	4	7	-	-	III	(4-7)
Castanea sativa	-	5	-	-	-	I	(5)
Taxus baccata	-	-	4	-	-	I	(4)
Acer pseudoplatanus	3	4	3	3	4	V	(3-4)
Ilex aquifolium	2	4	2	-	1	IV	(1-4)
Buxus sempervirens	4	7	-	5	-	III	(4-7)
Sambucus nigra	-	2	-	3	4	III	(2-4)
Corylus avellana	-	3	1	-	1	III	(1-3)
Crataegus monogyna	2	2	-	-	1	III	(1-2)
Rhododendron ponticum	4	7	-	-	-	II	(4-7)
Taxus baccata	-	-	-	-	4	I	(4)
Viburnum opulus	2	-	-	-	-	I	(2)
Populus tremula	1	-	-	-	-	I	(1)
Prunus avium	1	-	-	-	-	I	(1)
Fagus sylvatica	-	-	-	1	-	I	(1)
Rubus fruticosus agg.	6	9	7	6	9	V	(6-9)
Hyacinthoides non-scripta	5	5	6	4	5	V	(4-6)
Acer pseudoplatanus (seedling)	2	1	3	3	1	V	(1-3)
Fraxinus excelsior (seedling)	1	-	3	3	-	III	(1-3)
Eurhynchium praelongum	8	-	-	-	9	II	(8-9)
Hedera helix	5	-	-	-	-	I	(5)
Brachythecium rutabulum	-	-	-	-	3	I	(3)
Milium effusum	2	-	-	-	-	I	(2)
Galium aparine	1	-	-	-	-	I	(1)
Moehringia trinervia	-	-	-	-	1	I	(1)
Hedera helix (climber)	3	-	3	3	3	IV	(3)

Grid references:
Quadrat 8: SP4743672403
Quadrat 9: SP4733072490
Quadrat 10: SP4707572679
Quadrat 11: SP4772672721
Quadrat 12: SP4693572767

Vegetation type 3a (W10)

Species	Quadrat
	13
Acer pseudoplatanus	10
Fraxinus excelsior	2
Sambucus nigra	2
Taxus baccata	4
Hyacinthoides non-scripta	5
Fraxinus excelsior (seedling)	1
Acer pseudoplatanus (seedling)	4
Dryopteris dilatata	4
Silene dioica	3
Atrichum undulatum	3

Grid reference:
Quadrat 13: SP4731472725

Vegetation type 4 (W10)

Species	Quadrat 14
Acer pseudoplatanus	7
Picea abies	5
Prunus avium	5
Quercus robur	4
Sambucus nigra	1
Pteridium aquilinum	9
Rubus fruticosus agg.	9
Eurhynchium praelongum	8
Acer pseudoplatanus (seedling)	4
Milium effusum	3
Galium aparine	1
Moehringia trinervia	1

Grid reference:
Quadrat 14: SP4750072424

Vegetation type 5 (W14)

Species	Quadrat	
	15	16
Fagus sylvatica	9	8
Quercus robur	-	7
Sambucus nigra	-	2
Ilex aquifolium	5	-
Taxus baccata	1	-
Acer pseudoplatanus	-	3
Hyacinthoides non-scripta	5	6
Hedera helix	3	-
Fraxinus excelsior (seedling)	7	1
Ilex aquifolium (seedling)	1	-
Acer pseudoplatanus (seedling)	1	4
Milium effusum	2	-
Sambucus nigra (seedling)	-	2

Grid references:
Quadrat 15: SP4718272536
Quadrat 16: SP4730872609

Appendix 3: Vascular plant species list

Acer pseudoplatanus	Corylus avellana	Malus sylvestris	Rubus fruticosus agg.
Aegopodium podagraria	Crataegus laevigata	Mercurialis perennis	Rumex ?sanguineus
Ajuga reptans	Crataegus monogyna	Moehringia trinervia	Rumex obtusifolius
Alliaria petiolata	Digitalis purpurea	Phalaris arundinacea	Salix alba
Allium ursinum	Dryopteris dilatata	Pinus sylvestris	Salix cinerea
Alnus glutinosa	Dryopteris filix-mas	Poa trivialis	Salix fragilis
Anemone nemorosa	Fagus sylvatica	Populus nigra cv	Sambucus nigra
Anthriscus sylvestris	Fraxinus excelsior	Populus nigra cv (fastigiate)	Silene dioica
Arctium minus	Galium aparine	Populus x canescens	Silene x hampeana
Arum maculatum	Geranium robertianum	Primula vulgaris	Symphoricarpos albus
Betula pendula	Glechoma hederacea	Prunus laurocerasus	Symphytum officinale
Betula pubescens	Hedera helix	Prunus spinosa	Tamus communis
Brachypodium sylvaticum	Heracleum sphondylium	Pteridium aquilinum	Taxus baccata
Buxus sempervirens	Hyacinthoides non-scripta	Quercus robur	Ulmus ?procera
Cardamine hirsuta/flexuosa	Ilex aquifolium	Ranunculus ficaria	Ulmus glabra
Carex pendula	Lamiastrum galeobdolon argentatum	Ranunculus repens	Urtica dioica
Carpinus betulus	Larix decidua	Rhododendron ponticum	Veronica montana
Castanea sativa	Ligustrum vulgare	Ribes rubrum	Viburnum opulus
Chaerophyllum temulentum	Lonicera periclymenum	Ribes uva-crispa	Viola odorata
Circaea lutetiana	Mahonia aquifolium	Rosa canina	Viola sp

RICHARD TOFTS
ECOLOGY

Richard Tofts Ecology
Elmcroft, Redhill Road
Ross on Wye HR95AU
01989 565560
richard@rtecology.co.uk

Appendix 5
Plan of Operations (Work Programme) (Compartment 1: Cawston Spinney)

(To be prepared and agreed once the Managing Contractor is appointed)

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Appendix 6
Plan of Operations (Work Programme) (Compartment 2: Fox Covert)

(To be prepared and agreed once the Managing Contractor is appointed)

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Plans

Plan 1 Site Location and Compartment Boundary Plan
(edp4823_d003d 22 May 2020 GY/GM)

Plan 2 Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) – Environmental Features Plan
(edp4823_d004e 22 May 2020 GY/GM)

Plan 3 Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) - Non-native Invasive Understorey Plan
(edp4823_d005d 22 May 2020 GY/GM)

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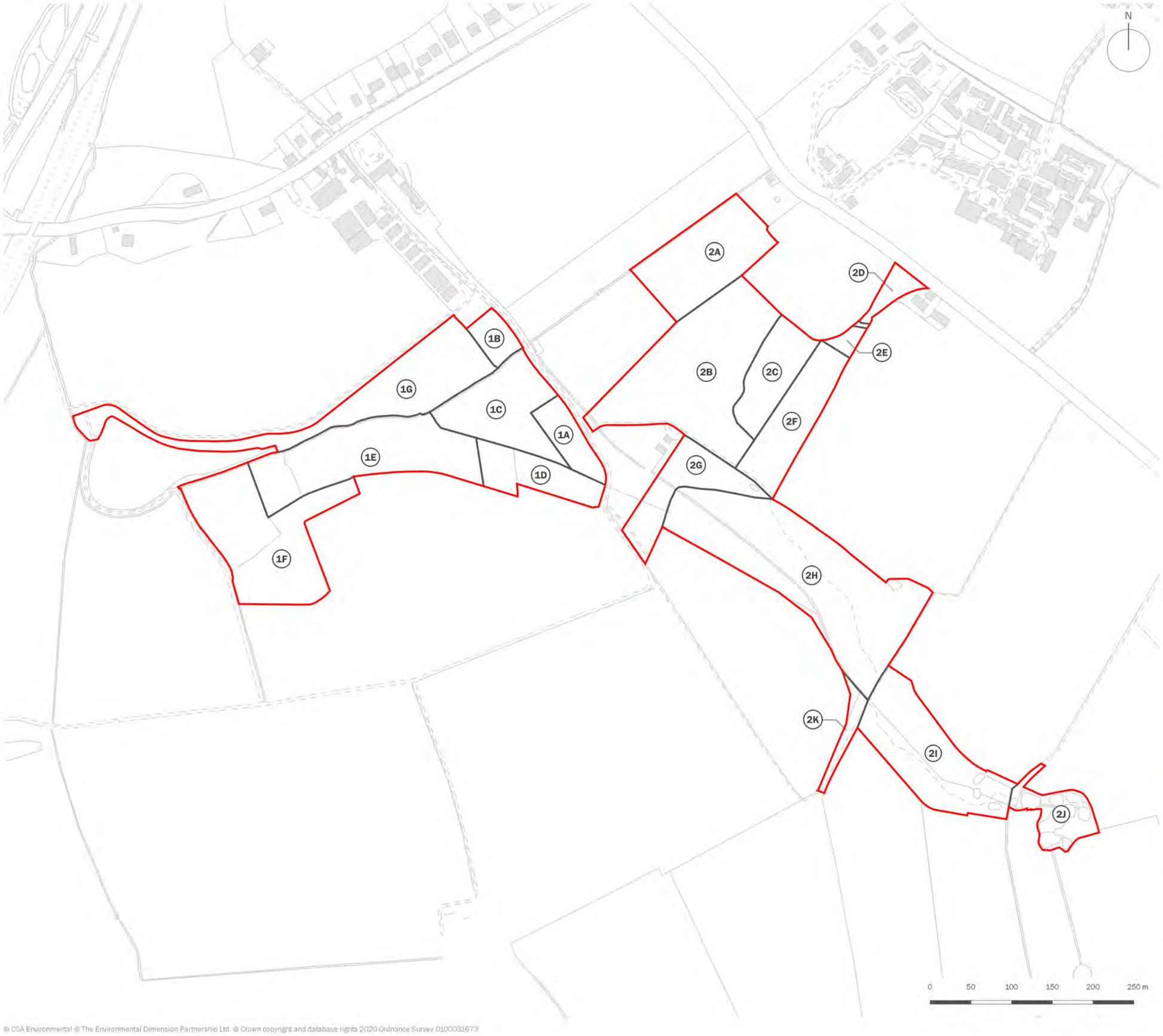

Legend

Woodland Management Plan Boundary

1A Sub Compartment

Notes:

Compartment 1 (Cawston Spinney) = 1A to 1G Inclusive

Compartment 2 (Cawston Fox Covert) = 2A to 2K Inclusive

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client

Tritax Symmetry Ltd and L&Q Estates Ltd

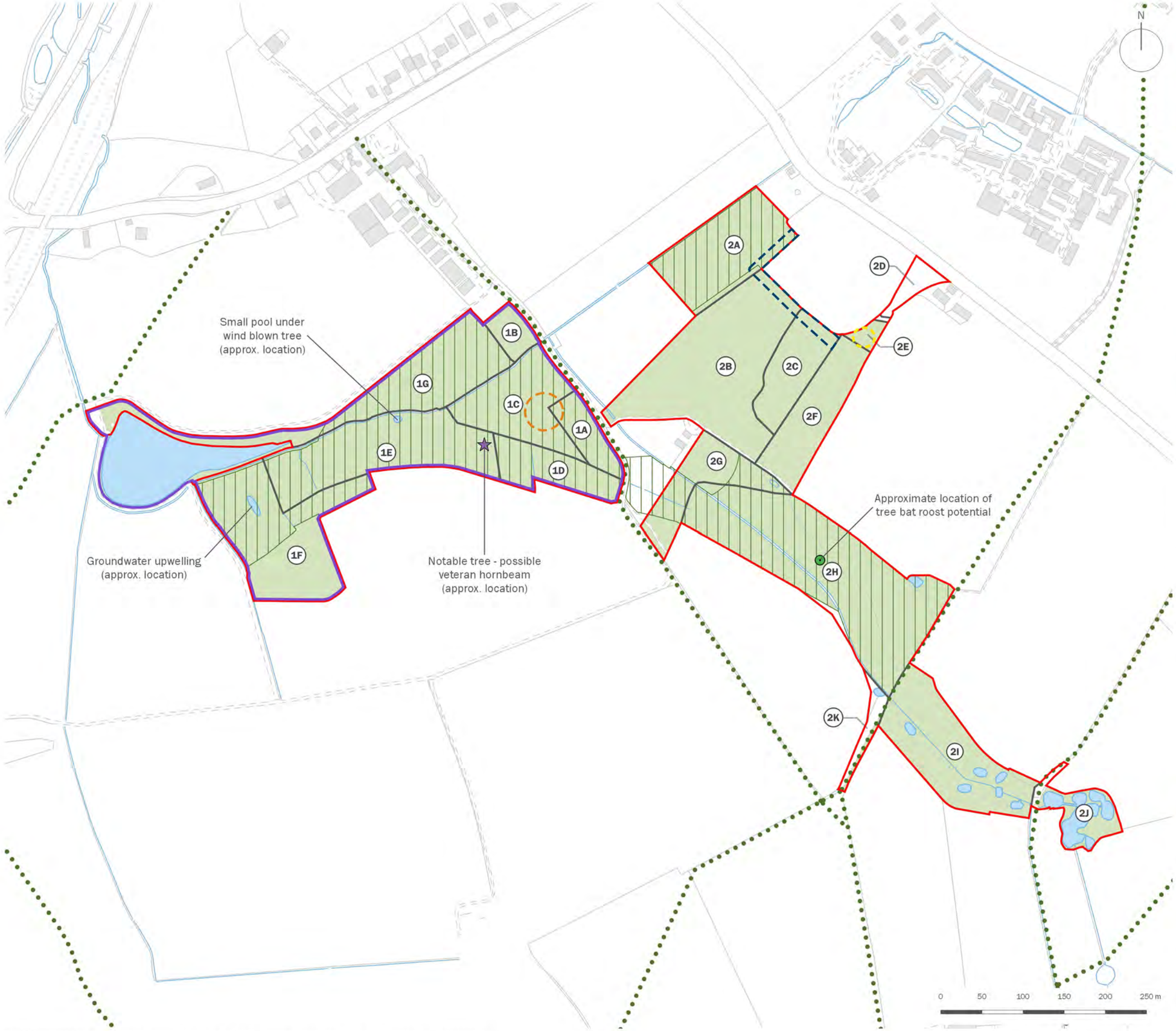
project title

Cawston Spinney/Cawston Fox Covert LWS Woodland Management Plan

drawing title

Plan 1: Site Location and Compartment Boundary Plan

date	22 MAY 2020	**drawn by**	GY
drawing number	edp4823_d003d	**checked**	GM
scale	Refer to scale bar	**QA**	LB



Legend

- Woodland Management Plan Boundary
- Local Wildlife Site (LWS)
- Deciduous Woodland Priority Habitat
- Ancient Semi Natural Woodland
- Water (Static/Flowing)
- Public Right of Way
- 1A Sub Compartment
- Main Area of Badger Sett Activity
- Approximate Location and Extent of Informal Recreational Usage
- Evidence of Rough Sleeping
- Notable Tree
- Potential Tree Bat Roost

Note: Public Rights of Way may be diverted in future – subject to agreement

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client

Tritax Symmetry Ltd and L&Q Estates Ltd

project title

Cawston Spinney/Cawston Fox Covert LWS Woodland Management Plan

drawing title

Plan 2: Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) - Environmental Features Plan

date	22 MAY 2020	**drawn by**	GY
drawing number	edp4823_d004e	**checked**	GM
scale	Refer to scale bar	**QA**	LB

Legend

- Woodland Management Plan Boundary
- Approximate Extent of Rhododendron
- Approximate Extent of Snowberry

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client

Tritax Symmetry Ltd and L&Q Estates Ltd

project title

Cawston Spinney/Cawston Fox Covert LWS Woodland Management Plan

drawing title

Plan 3: Compartment 1 (Cawston Spinney) and Compartment 2 (Cawston Fox Covert) - Non-native Invasive Understorey Plan

date	22 MAY 2020	**drawn by**	GY
drawing number	edp4823_d005d	**checked**	GM
scale	Refer to scale bar	**QA**	LB

edp | the environmental dimension partnership

CARDIFF
02921 671900

CHELTENHAM
01242 903110

CIRENCESTER
01285 740427

SHREWSBURY
01939 211190

info@edp-uk.co.uk
www.edp-uk.co.uk

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