

APPENDIX 8.5

STRATEGIC WOODY VEGETATION SURVEY

- Planning
- TPO
- Safety Inspection
- Subsidence
- Litigation
- Design

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EBBERSTON GAS PROJECT



STRATEGIC WOODY VEGETATION SURVEY



Prepared for:

Third Energy



FLAC Instruction ref:

CC33-1015



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EBBERSTON GAS PROJECT : KEY TO TREE SURVEY DATA SCHEDULE

Note

This survey has been undertaken in compliance with BS5837:2012; it is not intended to be a tree safety survey. Any notes offered on structural integrity of trees are incidental, though where trees are considered to be in immediately hazardous condition (identified by red font in the *Structural condition & Notes* column, see below), our recommendations given for immediate intervention should be put in hand by the owner / site manager as soon as can be arranged.

FLAC Ref. No.

Tree numbers per FLAC dwg no. 33-1015.03 and subsequent drawings

In line with the advice of BS5837:2012, where trees occur as a cohesive group feature (prefixed TG for tree group or WG for woodland group), they are assessed as such

Size data for TG or WG are given as mean figures for trees at roughly the 80 percentile of the population concerned. Trees in the 90-100 percentile range for the group are identified on the TSP

Trees within TG / WG boundaries that have more than one stem and which are sub-dominant within the TG / WG (i.e. <80 percentile) are subsumed within the TG / WG data; dominant multi-stemmed trees (i.e. >80 percentile) within TG / WG boundaries are listed as individual trees

TG / WG outlines follow the mapping base (typically either topographical survey or geo-rectified aerial imagery)

Hedges (domestic) are recorded prefixed H and are always excluded from the provisions of the Hedgerows Regulations 1997

Hedgerows (rural) are recorded prefixed HR and possibly fall within the provisions of the Hedgerows Regulations 1997

All numbering starts from x001 **for each type of vegetation**, where x identifies the surveyor (9000 series = JFL). Thus:

9000	Individual tree
TG9000	Tree group
WG9000	Woodland group
H9000	Domestic hedge
HR9000	Rural hedgerow

The addition of the FLAC instruction ref. ahead of the tree number provides a unique, non-repeated reference number for the particular tree in question

Any trees omitted from the topo survey are listed on the referenced plan, though their positions are only shown indicatively. Off-site trees are included where deemed relevant, though their positions are also shown indicatively if omitted from the topo base

TPO Ref.

Statutory protection listing for individual trees, TG and WG

ATTENTION: SEE NOTE IMMEDIATELY BELOW

Note

This column is only completed in cases where FLAC has been instructed to undertake a TPO search and correlation to FLAC reference numbers. The absence of data in this column **must not** be taken to indicate that the trees concerned are not under TPO protection. Statutory protection may also arise from the trees' location within a Conservation Area. Further statutory control over tree removal may be conferred by the Forestry Act 1967

Species

Tree species as listed in the schedule by common name. Species present are:

<i>Common name</i>	<i>Botanical name</i>	<i>Provenance</i>	<i>Notes</i>
Alder	<i>Alnus glutinosa</i>	Native	
Ash	<i>Fraxinus excelsior</i>	Native	
Aspen	<i>Populus tremula</i>	Exotic	
Bay willow	<i>Salix pentandra</i>	Native	
Beech	<i>Fagus sylvatica</i>	Native	
Blackthorn	<i>Prunus spinosa</i>	Native	
Bullace	<i>Prunus insititia</i>	Native	
Crab apple	<i>Malus sylvestris</i>	Native	
Crack willow	<i>Salix fragilis</i>	Native	
Damson	<i>Prunus domestica</i> subsp. <i>insititia</i>	Native	
Dogwood	<i>Cornus officinalis</i>	Native	
Dogrose	<i>Rosa canina</i>	Native	
Elder	<i>Sambucus nigra</i>	Native	
European larch	<i>Larix decidua</i>	Native	
Field maple	<i>Acer campestre</i>	Native	
Gean	<i>Prunus avium</i>	Native	
Goat willow	<i>Salix caprea</i>	Native	
Guelder rose	<i>Viburnum opulus</i>	Native	
Hawthorn	<i>Crataegus monogyna</i>	Native	
Hazel	<i>Corylus avellana</i>	Native	
Holly	<i>Ilex aquifolium</i>	Native	
Hornbeam	<i>Carpinus betulus</i>	Native	
Horse chestnut	<i>Aesculus hippocastanum</i>	Naturalised	
Myrobalan plum	<i>Prunus cerasifera</i>	Naturalised	
Norway spruce	<i>Picea abies</i>	Exotic	
Pear	<i>Pyrus communis</i>	Native	
Pedunculate oak	<i>Quercus robur</i>	Native	
Rowan	<i>Sorbus aucuparia</i>	Native	
Sallow	<i>Salix cinera</i>	Native	
Scots pine	<i>Pinus sylvestris</i>	Native	
Silver birch	<i>Betula pendula</i>	Native	
Sitka spruce	<i>Picea sitchensis</i>	Exotic	
Sycamore	<i>Acer pseudoplatanus</i>	Naturalised	
Wych elm	<i>Ulmus glabra</i>	Native	
Yew	<i>Taxus baccata</i>	Native	

Tree Count

For trees assessed as groups (ident. prefix TG), number of trees present, according to:

2-10 trees	Accurate count
11-50 trees	Close estimate
51-100 trees	Estimate

Area m²

For trees assessed as woodland (ident. prefix WG), existing area in square metres within survey envelope, derived from CAD interrogation of the completed tree survey plan

Ht. (m)

Tree height in metres

Either:

Crown Spread

For individual trees, measured radial crown spread in metres, listed for each of the four cardinal points

Or:

MRCS

For trees assessed as groups or woodland, an estimated mean radial crown spread in metres for trees at the 80 percentile size

Note

For trees assessed as woodland, sample measurements for canopy overhang beyond woodland boundary (i.e. hedgerow, fence, ditch etc.) are given on the tree survey plan

Or:

Mean Width

Mean width in metres of hedge or hedgerow

Length

Approximate length in metres of hedge or hedgerow

Ht. 1st Br.

For individual trees and trees assessed as groups or woodland, height in metres above ground of attachment point of first significant branch (cardinal point may be given indicating growing direction)

Ht. Can.

For individual trees and trees assessed as groups or woodland, mean height in metres of lower extent of tree canopy above ground

Stem Count

For individual trees, number of stems present below 1.5m AGL. Stem count affects diameter entry as follows:

Where the stem count is 1 the diameter should be entered into the 1 column under Stem Dia.

Where the stem count is up to 5 each stem dia. should be listed

Where the stem count exceeds 5, the mean stem diameter should be entered in the 1 column

Either:

Stem Dia. (mm)

Stem diameter(s) at 1.5m above ground level (see measurement system in BS5837:2012 Annex C), given in millimetres

Where entered 1:

Single measured stem diameter

Where entered 2-5:

Multiple measured stem diameters, listed per stem

Where entered >5:

For trees with more than five stems, diameter is listed as an estimated mean

Where the diameter entry for trees with 1 or 2-5 stems appears in italics, this indicates that it was estimated by the surveyor (for example, due to the presence of ivy on the stem)

It is our practice to round up when estimating stem diameters

Or:

Specimen Stem Dia.

For trees assessed as groups or woodland, stem diameter in millimetres at 1.5m above ground level for 80 percentile member of TG or WG. Trees with larger diameters are identified on the TSP

Or:

Mean Stem Dia.

Mean stem diameter in millimetres above the basal flare of hedge or hedgerow component plants

Either:

RPA Rad.

Radius in metres of the notionally circular Root Protection Area

Or:

Specimen RPA Rad.

For trees assessed as groups or woodland, radius in metres of the notionally circular Root Protection Area based on specimen diameter for TG or WG 80 percentile tree

Either:

RPA Area

Conversion of RPA radius to an area, given in m², capped to a maximum of 707m² (in line with BS5837:2012)

Or:

Specimen RPA Area

For trees assessed as groups or woodland, conversion of specimen RPA radius to an area, given in m², capped to a maximum of 707m²

Note

RPA for hedges or hedgerows is to be taken as 3m from the centreline, half the height or 2m beyond existing width, whichever is the greater

Life Stage

Life stage assessment according into:

Y	Young
SM	Semi-mature
EM	Early mature
M	Mature
OM	Over-mature

Phys. Condition

An assessment of the **physiological** condition (i.e. health/vitality) status of the tree summarised according to:

GOOD	Generally in healthy condition
FAIR	Condition satisfactory though below mean species performance
POOR	Tree in decline/retrenching
DEAD	Self explanatory

Structural condition & Notes

Notes on the apparent structural integrity of the tree based on visual tree assessment, including notes on form, taper, forking habit, storm damage, decay fungi, pests, etc. plus other pertinent observations

Management recommendations

Preliminary recommendations for intervention (e.g. tree surgery, felling, etc) in relation to existing context

Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practical. Where the recommendation is for further investigation, including removal of ivy and reinspection, the given retention span and quality/value grade (see below) should be treated as provisional

Notes

This is **not** intended to comprise a specification for tree work: further advice should be sought prior to implementation

Change in land use (target value) requires further assessment

Ret. Span

Estimated remaining retention span based on species, condition & context divided into the following bands (relates to quality and value grade achievable as stated):

Years Best QV grade

<10	U
10+	C
20+	B
>40	A

QV Grade

Quality & Value grade classification according to BS5837:2012 (see attached extract from BS5837:2012 'Table 1 - Cascade Chart for Tree Quality Assessment') –

<i>Grade</i>	<i>Summary meaning</i>	<i>Ident. colour spot on TSP</i>
U	Trees that are unretainable in viable condition	Dark red
A	High quality & value and consequent high retention priority	Light green
B	Moderate quality and value (moderate priority for retention)	Mid-blue
C	Low quality and value (generally considered to be sacrificial)	Grey

Note

Trees present which we consider to be **exceptional** specimens are identified by the suffix * after the A grade, e.g. A1*

Proposal

This column identifies:

1. Pre-planning (Arboricultural Stages 1, Tree Survey, & 2, Design):
JFL's initial view of a defensible tree retention / removal balance
2. Planning submission (Arboricultural Stage 3):
The actual tree retention / removal balance as proposed

The following codes are used:

RET	1. Trees preferably retained 2. Trees that would be retained
PRET	<i>For woodlands only</i> – signifies partial retention (see below)
REM	1. Trees defensibly removed to facilitate development 2. Trees that would be removed
U	Trees identified to be unsuitable for retention

Area retained m²

For woodlands only

Area, in square metres, of woodland (WG) proposed for retention. Outcomes are as follows:





Survey grade U	Area for retention defaults to 0 (can be amended by manual override)
Proposal code RET	Area for retention defaults to existing area
Proposal code PRET	Area for retention requires manual input following interrogation of relevant plans
Proposal code REM	Area for retention defaults to 0

Area retained %

For woodlands only

Percentage of pre-existing WG area that would be retained, based on an auto-sum derived from inputs into the preceding column

BS5837:2012 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	<ul style="list-style-type: none"> 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i></p>			
	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)	
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	
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	

FLAC Note

The original contents of the column *Identification on plan* have been replaced by FLAC in the version above; spot colours to RGB codes given in BS5837:2012 Table 2

GUIDANCE FOR IDENTIFYING VETERAN TREES

BS5837:2012 defines veteran trees as follows:

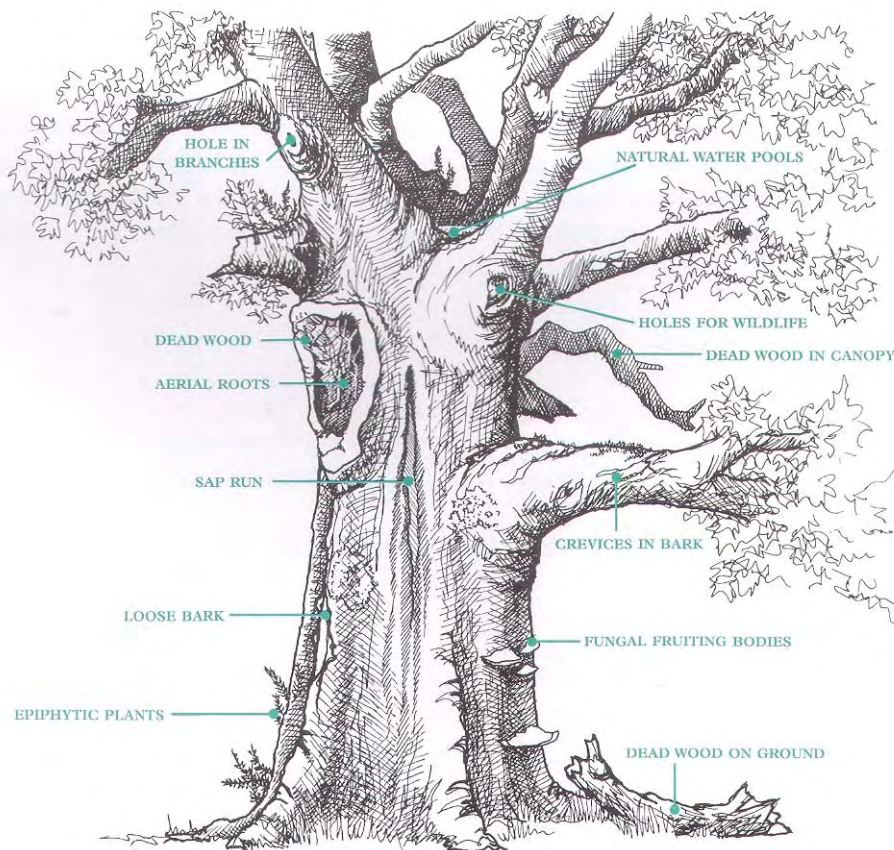
“Trees that, by recognized criteria, show features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned”

Note – these characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem

The criteria referred to are summarised by the following illustration:

Illustration from ‘Veteran Trees: A Guide to Good Management’ (Helen Read, EN 2000)

Figure 3*. *Diagram to show the features characteristic of a veteran tree.*



NB Not all features listed above have to be present simultaneously for a tree to qualify.

Other indicators given by Read are:

- **Girth/diameter large for species**
- **High number of interdependent wildlife species, including invertebrates**
- **An ‘old look’**
- **Pollard form or other indications of historic management techniques**
- **Occupying a prominent position in the landscape, or standing on a boundary**
- **Have a known cultural or historic value**

EBBERSTON GAS PROJECT PIPELINE : WOODY VEGETATION SURVEY DATA TABLE

Data for individual trees

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1 st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C
				N	S	W	E				1 / mean	2	3	4	5								
9001		Pedunculate oak	10	4.5	5	5	8.5	3m W	3m N	1	810					9.72	297	M	F	Significant recent storm damage. Excessively long lateral limb on east.	Reduce Limb on east side by 3metres	>40	B1
9002		Pedunculate oak	13	7	8	6	6	3m N	2m E	1	850					10.20	327	M	G	Wide spreading tree with past storm damage. Cavities have bat-roost potential. Prominent tree in landscape.	No action required at time of survey	>40	A3
9003		Pedunculate oak	13	5	6	7	5	5m S	3m S	1	780					9.36	275	M	F	Reasonable form. Prominent in landscape. Low vitality following insect defoliation, though debilitation probably temporary.	No action required at time of survey	>40	B1
9004		Ash	13	5.5	7	6	7	3m S	2m E	4	350	350	250	200		7.08	157	EM	G	Adjacent to ditch. 4 stems from ground level. Dense vegetation prevents inspection.	No action required at time of survey	>40	B1
9005		Pedunculate oak	15	6	5	6.5	5.5	4m N	2m E	1	750					9.00	254	M	G	Minor storm damage and dead wood in crown. High quality, prominent tree.	No action required at time of survey	>40	A1
9006		Pedunculate oak	14	8	8	9.5	7	3m S	2m E	1	870					10.44	342	M	G	Prominent landscape tree. Recent lightning damage on southern limb which extends to ground.	No action required at time of survey	>40	A1
9007		Pedunculate oak	13	5	6.5	7.5	6.5	4m W	2m N	1	690					8.28	215	EM	F	Compaction from cattle and damage to buttress roots. Water-logging to west. Major break-out wound 3.5 metres to north. Slightly low vitality. Brown rot present. Bat roost potential.	No action required at time of survey	20+	B3
9008		Ash	21	5	9	6	7	5m W	2m W	2	700	650				11.47	413	M	F	Twin-stemmed from 1.5 metres. Principal stem to south has longitudinal decay from 4-6 metres and <i>Inonotus hispidus</i> fruiting bodies. Fine landscape tree - however retention span potentially limited due to disease.	No action required at time of survey	20+	B2
9009		Pedunculate oak	16	7	7.5	7.5	7			1	880					10.56	350	M	G	High quality tree. No defects seen of apparent structural significance.	No action required at time of survey	>40	A1
9010		Ash	15	5	6.5	7	5	4m W	2m N	1	550					6.60	137	EM	P	Low vitality. Storm damage cavities with moderate bat roost potential.	No action required at time of survey	20+	B3
9011		Ash	14	7	6	8	6	4m W	1m S	1	700					8.40	222	M	G	High vitality. Good quality tree. No defects seen of apparent structural significance.	No action required at time of survey	>40	A1
9012		Pedunculate oak	13	5	5	7.5	6	4m W	2m E	1	730					8.76	241	EM	G	Frequent storm damage and cavities in crown. Bat roost potential.	No action required at time of survey	>40	B3
9013		Pedunculate oak	12	3	7	6	5	4m S	4m S	1	640					7.68	185	EM	F	Suppressed by adjacent woodland group. Tree of moderate quality and value.	No action required at time of survey	>40	B1
9014		Ash	13	7	7	7	7	0m N	2m W	7	250					7.94	198	M	G	Multi-stemmed from ground level from past hedgerow management.	No action required at time of survey	>40	B3
9015		Crack willow	14	6	7	6	8	0m	1m E	4	450	400	300	250		8.62	233	OM	F	Significant past storm damage - landscape feature.	No action required at time of survey	20+	B2
9016		Ash	16	9	9	6	12	4m W	2m E	1	950					11.40	408	M	F	Slight low vitality. Prominent landscape tree. Long over-extended lateral limb to east.	No action required at time of survey	>40	A3
9017		Ash	16	7	8	6	8	3m W	2m W	1	750					9.00	254	M	G	Prominent landscape tree. No defects seen of apparent structural significance.	No action required at time of survey	>40	A2
9018		Field maple	8	5	4	5	4	2m N	1m N	1	550					6.60	137	M	G	Twin-stemmed from 1.5 metres. Old hedgerow tree with bat roost potential.	No action required at time of survey	>40	A3
9019		Ash	13	6	3	4	5	3m N	2m N	1	700					8.40	222	M	F	Slight low vitality. Prominent landscape tree along old hedge line.	No action required at time of survey	>40	B2
9020		Crab apple	8	5	6	5	5	0m	2m S	2	500	500				8.49	226	M	G	Very old veteran tree in grown-out hedge group.	No action required at time of survey	>40	A3
9021		Ash	14	5	5	5	5	3m N	1m W	1	940					11.28	400	OM	G	Storm damage in crown. <i>Inonotus hispidus</i> fungal fruiting bodies - stem cavity (hollow stem) - bat roost potential. Veteran tree. Low vitality.	No action required at time of survey	>40	A3
9022		Ash	12	6	6	6	6	3m S	1m W	1	550					6.60	137	M	G	Good vitality. No defects seen of apparent structural significance. High quality tree.	No action required at time of survey	>40	A1
9023		Ash	11	6	7	7	7	0m	1m E	2	750	450				10.50	346	M	G	Twin-stemmed from ground level. Dense ivy restricted inspection.	No action required at time of survey	20+	B1
9024		Ash	15	8	9	4	8	0m	2m E	2	600	600				10.19	326	M	G	Twin-stemmed from 0.5 metres. No defects seen of apparent structural significance.	No action required at time of survey	>40	A1
9025		Ash	12	6	4	3	7	5m N	2m E	1	650					7.80	191	M	F	Storm damage. Bat roost potential. Prominent landscape feature.	No action required at time of survey	>40	A3
9026		Ash	14	7	7	7	8	3m N	2m N	1	900					10.80	366	M	F	Prominent landscape feature. Cavities with bat roost potential.	No action required at time of survey	>40	A3
7001		Horse chestnut	15.7	9.6	10.5	7.6	9.8	3.4 - N	2.5	1	960					11.52	417	M	G	Stem very slightly angled towards E. Large and impressive tree with no significant dieback or disease evident. Some minor to moderate deadwood in central crown. A few small decaying pruning wounds present from 3-5m on NE face, all showing adequate healing. Full healthy crown present.	No action required at time of survey	>40	A1
7002		Sycamore	13.8	5.4	5.7	4.8	6.1	2.2 - E	2.4	1	380					4.56	65	EM	F	ICLS on upright tree. Somewhat skewed crown due to TG7001 to N/W. Some very minor branch tip dieback to S/E in upper crown.	Sever ivy at base	20+	B1
7003		Ash	10.3	3.2	4.8	2.6	6.4	2 - W	1.4	1	300					3.60	41	EM	F	ICLS. Tree has very skewed crown due to adjacent trees (T7002/7003 and TG7001). Dieback and sparsity of foliage noted in lower crown.	Sever ivy at base	20+	B1
7004		European larch	17.8	3.8	3.5	3.1	3.6	5.6 - S	1.4	1	380					4.56	65	M	F	Upright stem is covered with ivy. Lower branches have significant weeping habit. Tree appears out of place with surrounding broadleaves	Sever ivy at base	20+	B1
7005		Pedunculate oak	13.7	6.1	6.2	6	8.9	2.5 - E	1.9	1	570					6.84	147	M	F	Upright tree growing in gap in low hedgerow. Bark wounds at base to W with associated decay of timber, but no aggressive decay seen. Moderate dieback/sparsity of foliage throughout crown. Moderate deadwood present in lower and central crown.	Remove deadwood above field to E. Reinspect annually to determine if dieback is getting worse	20+	B1
7006		Pedunculate oak	9.1	6.8	6.2	8.1	6.7	1.9 - W	2.2	1	690					8.28	215	M	F	Spreading crown from 1.9m with large deadwood to N in lower crown. Bark wound at base to e, with some minor non-aggressive decay associated. Large historic tear wound to E at 2.4m. Some sparsity of foliage evident throughout	Remove major deadwood above field. Reinspect annually to determine if foliage sparsity is due to environmental conditions or to a systemic problem	20+	B1
7007		Ash	12.4	4.9	5	5.3	5.6	1.9 - S	1.7	2	440	400				7.14	160	EM	F	Twin stemmed from 1m with included union where stems meet. Stems have slightly twisting nature but are generally upright. Cannot fully inspect base due to adjacent drainage ditch to W. Sparsity of foliage in upper crown. No significant observed decay.	Reinspect to determine if sparsity of foliage is due to environmental conditions or is a sign of a systemic problem	20+	B1
7008		Ash	12.2	6.7	6.6	6.8	6.9	2.4 - N	1.7	1	620					7.44	174	M	F	Upright stem has 3 fresh large <i>Inonotus hispidus</i> FFBS from 2.6-3.2m on N/E face, centred around a historic tear wound. Crown is rounded and spreading but is showing sparsity of foliage towards upper and central areas. Lower trunk appears intact with no evidence of significant internal hollowing.	Consider pollarding to leave stump as standing deadwood for habitat purposes	20+	B3
7009		Ash	14.2	6.2	6.8	7.3	5.9	2.1 - W	1.9	1	770					9.24	268	M	F	Upright stem leads to full crown. Some minor dieback of upper most branches leaving moderate deadwood in outer crown. No significant observed decay. Cannot fully inspect base due to drainage ditch to W	Remove deadwood	20+	B1
7010		Pedunculate oak	14.7	8.3	7.7	7.5	7.2	3.1 - N	2.9	1	1030					12.36	480	M	F	Upright stem has several very large (>500mm wide) historic pruning wounds on trunk from 1.6-3m. These are showing good healing, but have associated non-aggressive decay/desiccation of timber. No significant observed decay at base, but cannot fully inspect base to W due to ditch/dense vegetation. Some moderate-large deadwood present in central crown. Foliage is generally healthy, but some minor dieback is evident to N and W in outermost crown.	Reinspect biennially to determine if dieback is worsening	20+	B1

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1 st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C
				N	S	W	E				1 / mean	2	3	4	5								
7011		Ash	15.6	7.5	7	6.4	7.2	2.4 - W	1.7	1	730					8.76	241	M	F	Cannot fully access base of tree due to drainage ditch and dense vegetation. Upright stem has rounded crown which is showing moderate dieback in central/western area. Large deadwood present in central and lower crown. Small open cavity at 4.2m to S shows signs of bat roosting (urine staining). retained deadwood is providing habitat/food for woodpeckers and other bird species at present. Majority of crown is healthy and carries thick foliage. Around base to E/N there is excessive buttressing of roots/lower stem, possibly due to historical mechanical damage. No sign of internal stem decay	No action required at time of survey	20+	B3
7012		Ash	14.4	6.6	8.4	8.3	7.8	2.5 - N	1.5	1	890					10.68	358	M	F	Upright stem has extremely wide basal flare (approx. 2.4m diameter at 0.4m), possibly due to historical mechanical damage. Stem has slight lean towards S. Cannot fully access base of tree due to ditch/dense vegetation to W. General sparcity of foliage throughout crown, with minor dieback evident at tips some branches. No significant observed decay	Reinspect biennially to determine if dieback is worsening	20+	B1
7013		Pedunculate oak	13.5	10.6	8.2	9.4	6.9	2.4 - S	1.4	1	1100					13.20	547	M	F	Upright stem has round crown with some sparcity of foliage to N and W areas due to insect defoliation. Two large historic branch failure sites at 2-2.4m to NE, has left decaying wound with little healing evident, decay does not extend far and no significant internal hollowing/detected.. Large failed limb hanging in W crown, likely from storm damage. Moderate deadwood in central crown. Veteran tree.	Remove hanging broken branch	40+	A1

Data for trees assessed as groups (TG)

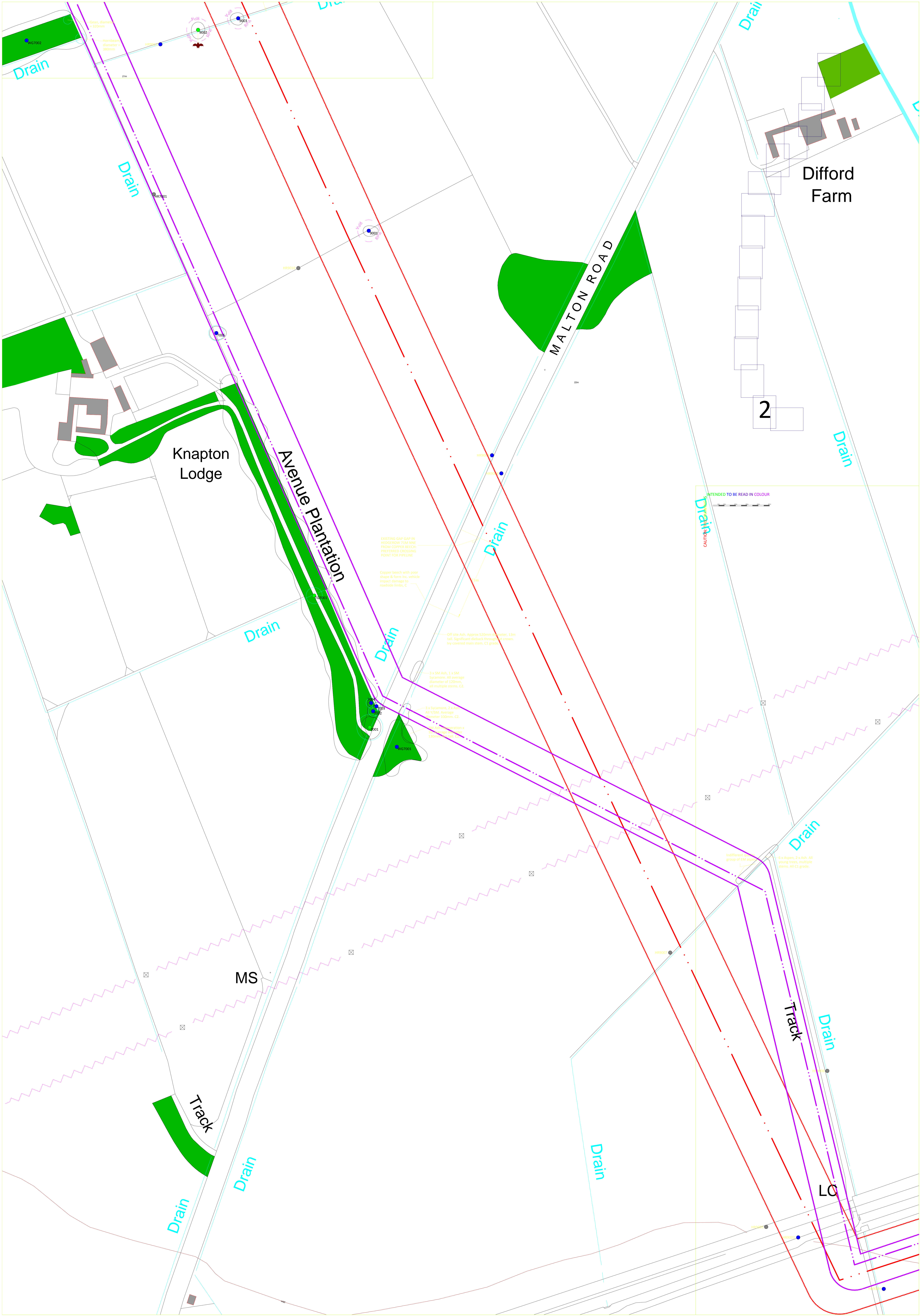
FLAC Ref. No.	TPO Ref	Species	Tree Count	Ht. (m)	MRCs (m)	Ht. 1 st Br. (m)	Ht. Can. (m)	Specimen Stem Dia. (mm)	Specimen RPA Rad. (m)	Specimen RPA Area (m ²)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C
TG 9001		Hazel, gean, ash, silver birch, scots pine, goat willow, pedunculate oak, alder, field maple, guelder rose, dogwood, elder, dogrose, hawthorn, blackthorn	600	8	4	0m	0m	200	2.40	18	SM	G	Contiguous canopy with no gaps - numerous closely spaced stems. Even age structure. Adjacent to road leading to power station - likely to have been planted at road construction.	No action required at time of survey	>40	B2
TG 9002		Hawthorn	15	6	5	1.5m E	1m E	350	4.20	55	OM	F	Linear group. Low vitality and structural damage at southern end - better condition at northern end. Shelter trees for cattle.	No action required at time of survey	20+	B2
TG 9003		Crack willow	2	14	9	2m N	2m W	850	10.20	327	M	F	Growing adjacent to deep ditch. Past storm damage - tree on east has significant lean. Pair of tawny owls seen flying out of eastern tree. Potential owl nest tree	No action required at time of survey	20+	B3
TG 9004		Hawthorn, field maple, elder	30	7	4	1m E	0m E	650	7.80	191	M	F	Neglected former hedgerow comprising scattered grown-out hawthorn and occasional veteran field maples and crab apples. Ditch to west of group.	No action required at time of survey	>40	A3
TG 9005		Hawthorn, sallow, elder, dogrose, guelder rose, ash, crab apple	20	7	5	-	-	600	7.20	163	M	G	Mature grown-out hedgerow group with few gaps and some very old trees. Adjacent to deep water-filled ditch. High likely ecological value.	No action required at time of survey	>40	A3
TG 9006		Gean, silver birch, hawthorn, hazel, horse chestnut, ash, pedunculate oak	15	6 to 8	3	1m W	-	120	1.44	7	SM	F	Relatively young plantation.	No action required at time of survey	>40	C2
TG 9007		Pear, hazel, bullace, guelder rose, blackthorn, field maple, hawthorn	25	8	6	-	-	800	9.60	289	M	G	Grown out hedgerow group including very old veteran pear and field maples.	No action required at time of survey	>40	A3
TG 9008		Pedunculate oak x5, scots pine x5	10	17	7	4m W	3m W	500	6.00	113	M	F	Prominent trees around agricultural building. Pines have storm damage and low vitality. Occasional stem wounds on oak.	No action required at time of survey	20+	B2
TG 9009		Goat willow, rowan, silver birch, pedunculate oak	50	4 to 10	3	0m	1m W	450	5.40	92	SM	F	Individual trees typically scrappy. Closely spaced trees adversely affecting development	No action required at time of survey	>40	C2
TG7001		Pedunculate oak, beech, sycamore, silver birch, horse chestnut,	60	18	6	2.2 - E	3.4	600	7.20	163	M	F	Full avenue of trees either side of driveway. Both sides of avenue are 3-4 rows of trees deep, giving the feeling of narrow woodland strips. Feature has some gaps towards N end. Trees are in fair to good condition, but some smaller trees in centre of each strip show signs of dieback or are dying, leaving standing deadwood stumps. Regular management is evident above driveway. No signs of widespread disease or decay. Some small amounts of deadwood present in some trees. Aesthetically distinct and impressive in surrounding.	Fell standing deadwood, or leave and encourage natural regeneration of trees to further the impression of woodland.	>40	A2

Data for trees assessed as woodland (WG)

FLAC Ref. No.	TPO Ref	Species	Area (m ²)	Ht. (m)	MRC5 (m)	Ht. 1 st Br. (m)	Ht. Can. (m)	Specimen Stem Dia. (mm)	Specimen RPA Rad. (m)	Specimen RPA Area (m ²)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C
WG 9001		Ash, pedunculate oak, sycamore	16775	17	6	2m N	1m N	600	7.20	163	EM	G	Linear woodland group comprising predominantly oak and ash. Even age structure, high landscape value.	No action required at time of survey	>40	A2
WG 9002		Pedunculate oak, ash, sycamore hawthorn, wych elm	4630	20	8	3m S	3m S	850	10.20	327	M	G	Woodland group growing as wide linear belt. Predominantly oak with planted sycamore and hawthorn understorey. High quality landscape feature.	Remove sycamore	>40	A2
WG 9003		Norway spruce, hawthorn, elder, sycamore	2515	18	4	3m W	1m W	350	4.20	55	EM + M	F	Plantation woodland comprising spruce with hawthorn around margin. Mature sycamore in north-east end.	No action required at time of survey	20+	C2
WG 9004		Larch, hawthorn, bay, willow, silver birch, pedunculate oak, rowan	101175	12	3	2m	1m	200	2.40	18	SM	F	Closely-spaced larch plantation trees of relatively low merit. Broadleaf planting on margins of ride. Larger sycamores at north-eastern margin.	No action required at time of survey	>40	C2
WG 9005		Sycamore, hawthorn, silver birch, rowan, goat willow, larch	42155	10	4	1m W	1m W	600	7.20	163	EM	F	Scrappy group of self-generating broadleaf trees - potential to develop into better quality group. Just crosses B grade threshold.	No action required at time of survey	>40	B2
WG 9006		Beech, hawthorn, silver birch, elder, ash, pedunculate oak, larch	55020	14	5	1m S	0m S	400	4.80	72	SM	F	Plantation group of even-age beech trees at western end, with thorn and elder along margins. Greater species diversity further east, becoming predominantly larch at eastern end.	No action required at time of survey	>40	B2
WG 9007		Larch, goat willow, occasional silver birch	55290	22	4	2m W	1m W	450	5.40	92	M	G	Commercial larch plantation with insignificant willows on margin.	No action required at time of survey	20+	C2
WG 9008		Beech, goat willow, larch, birch	110985	24	5	4m	1m E	400	4.80	72	EM	F	Mid pole stage. Predominantly beech plantation. Even-age. Relatively straight stems. Occasional birch and larch.	No action required at time of survey	>40	B2
WG 9009		Scots Pine, goat willow, silver birch	46425	25	5	10m N	10m N	500	6.00	113	M	F	Widely spaced pine trees dominate group. Low vitality, apparently affected by needle blight. Relatively short retention span. Willow trees on margin.	No action required at time of survey	10+	C2
WG 9010		Larch, goat willow	40130	15	5	1m S	1m S	300	3.60	41	EM	G	Closely spaced commercial woodland in need of thinning. Willow trees of low significance on margin.	No action required at time of survey	20+	C2
WG 9011		Rowan, sitka spruce, scots pine, silver birch, holly, hawthorn	77260	7 to 10	3	-	-	200	2.40	18	SM	F	Previously felled woodland area allowed to naturally regenerate. Scrubby growth. Sitka spruce becoming dominant to north-east.	No action required at time of survey	>40	C2
WG 9012		Sitka spruce, willow, hawthorn, pinus sp	44025	13	3	2m S	0m	300	3.60	41	EM	F	Plantation woodland group. Willows around margin.	No action required at time of survey	20+	C2
WG 9013		Goat willow, rowan, silver birch, pedunculate oak	52535	12	3	2m	1m	200	2.40	18	SM	F	Closely-spaced larch plantation trees of relatively low merit. Broadleaf planting on margins of ride. Larger sycamores on north-eastern margin.	No action required at time of survey	>40	C2
WG 9014		Sitka spruce, willow, hawthorn, pinus sp, rowan	20260	13	3	2m S	0m	300	3.60	41	EM	F	Plantation woodland group. Willows around margin.	No action required at time of survey	20+	C2
WG 9015		Scots Pine, goat willow, silver birch	12925	25	5	10m N	10m N	500	6.00	113	M	F	Widely spaced pine trees dominate group. Low vitality, apparently affected by needle blight. Relatively short retention span. Rowan trees on margin. Reasonable understorey.	No action required at time of survey	10+	C2
WG 9016		Sitka spruce	20885	30	6	2m E	1m E	650	7.80	191	M	G	Mature, large trees ready for harvest. Widely spaced with dense sitka regeneration beneath.	No action required at time of survey	20+	C2
WG 9017		Scots Pine, sitka spruce, goat willow, rowan	3215	7 to 14	4	0m	1m E	300	3.60	41	SM + M	F	Scattered dispersed, scrubby group. One poor condition scots pine close to corner.	No action required at time of survey	20+	C2
WG 9018		Larch, rowan, silver birch, hawthorn, sitka spruce, goat willow	27815	17	5	2m S	0m S	300	3.60	41	EM	F	Closely spaced trees in commercial plantation with larch dominant.	No action required at time of survey	20+	C2
WG 9019		Rowan, hawthorn, silver birch, pedunculate oak, goat willow	27970	11.5	3.5	0m	0m	170	2.04	13	SM + EM	G	Mixed broadleaf plantation edge/buffer with adjacent spruce/larch stand. Reduces visual impact of well site	No action required at time of survey	>40	B2
WG7001		Sycamore, pedunculate oak, ash, hawthorn	978	14.8	5.5	1.2 - S	1.2m	540	6.48	132	M	F	Small woodland group with dense ground cover composed of weedy ruderals, and scrubby trees/regeneration. Mature oaks and sycamore show some signs of decline with some moderate dieback seen in upper crowns. Ivy is predominant throughout group. Cannot fully access base of all trees due to dense vegetation. Variation of ages is good, especially considering size of group. Good habitat potential	Consider management of weedy ruderals at margins of woodland to encourage healthy regeneration	>40	B3
WG7002		Hornbeam, gean, pedunculate oak, sycamore	3454	14	6	1.4 - E	2.6m	400	4.80	72	M	F	Boundary trees to S are all hornbeam with gean dominating in central areas and at field boundary to E. Little ground flora beyond ruderal weeds and grasses. Ivy covers most stems. Little management evident but reasonably habitat potential due to standing dead trees towards centre. Some variation in maturity of trees aids diversity.	Consider trying to control weedy ruderals to allow better natural regeneration of tree species.	>40	B3
WG7003		Pedunculate oak, ash, sycamore hawthorn, wych elm	1252	20	8	3 - S	2.2m	650	7.80	191	M	G	Woodland group growing as wide linear belt. Predominantly oak with planted sycamore and hawthorn understorey. High quality landscape feature. Extension of WG9002.	Remove sycamore	>40	A2

Data for hedges (H) and hedgerows (HR)

FLAC Ref. No.	Species	Ht. (m)	Mean Width (m)	Length (m)	Mean Stem Dia. (mm)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade
										<10, 10+ 20+, >40	U-A-B-C
HR 9001	Blackthorn, hawthorn, dogrose, ash, sycamore, elder	2	3	280	50	EM	G	Recently managed hedge with no gaps. Good density.	No action required at time of survey	>40	B2
HR 9002	Hawthorn, ash, dogrose, damson	1.5	1.5	570	50	EM	G	Recently managed hedge with no gaps. Good density.	No action required at time of survey	>40	B2
HR 9003	Hawthorn	1.5	1.5	140	50	EM	F	Recently managed, highly fragmented with integrity largely lost.	Re-enforcement planting	>40	C2
HR 9004	Hawthorn, dog rose, goat willow	2.5	2	125	80	EM	G	Recently managed hedge with no gaps. Good density.	No action required at time of survey	>40	B2
HR 9005	Sallow, hawthorn	5	3	135	80	EM	F	Grown out hedgerow. Principally grey willow, occasional hawthorn. Gappy at eastern end. Very poorly pruned on north side adjacent to railway.	No action required at time of survey	20+	C2
HR 9006	Hawthorn, field maple, hazel, willow, ash	2 to 4	2	305	50	EM	F	Regularly managed. Gappy in places.	Re-enforcement planting	>40	C2
HR 9007	Hawthorn, aspen, ash	2 to 7	3	195	100	EM	F	Regularly managed. Gappy in places. Occasional grown-out aspen and ash.	No action required at time of survey	>40	C2
HR 9008	Damson, hawthorn, dogrose, wych elm	3 to 5	3	215	50	EM	G	Recently managed hedge with no gaps and good density. Screening function with road to north. Gap centrally in hedge would make good pipeline crossing route.	No action required at time of survey	>40	B2
HR 9009	Ash, dogrose, sycamore, hawthorn, willow, damson, wych elm	2 to 3	2.5	220	50	EM	G	Unmanaged hedgerow. Gappy in places, but reasonable continuity. Some screening function from road.	No action required at time of survey	>40	B2
HR 9010	Hawthorn, elder, dogrose	2	1.5	200	50	EM	G	Slightly sparse, gaps in places.	No action required at time of survey	>40	C2
HR 9011	Gean, dogrose, hawthorn, elder	2	2	200	50	EM	G	Reasonable structure, few gaps.	No action required at time of survey	>40	B2
HR 9012	Dogrose, elder, hawthorn, guelder rose, dogwood, sycamore, yew, pedunculate oak, ash	2 to 3	2.5	200	80	M	G	Managed hedgerow with good integrity and no gaps, species rich. Adjacent to (apparently) permanently water-filled ditch. Potentially 'important hedgerow'.	No action required at time of survey	>40	A3
HR 9013	Hawthorn, elder, dogrose	2 to 3	2	80	50	EM	G	Managed hedge with good vitality and no gaps. Connectivity with substantial tree group to east.	No action required at time of survey	>40	B2
HR 9014	Dogrose, hawthorn, damson, elder, ash, willow, blackthorn	2	2	825	100	M	G	Managed hedgerow. Few gaps, but generally good integrity and vitality. Good connectivity. Water-filled ditch to west. Species-rich. Potentially 'important hedgerow'	No action required at time of survey	>40	A3
HR 9015	Ash, hawthorn, sycamore, dogrose, willow, elder	2	2	100	80	M	G	Adjacent to water-filled ditch. Species-rich, potentially 'important hedgerow'. Good vitality and connectivity.	No action required at time of survey	>40	A3
HR 9016	Hawthorn, elder, myrobalan plum	4 to 5	4	210	100	EM	F	Scrappy and gappy grown-out trees.	No action required at time of survey	20+	C2
HR 9017	Hawthorn, willow	2 to 3	3	145	90	M	G	Good structure with few gaps.	No action required at time of survey	>40	B2
HR 9018	Hawthorn, damson	2	2	205	80	M	G	Recently managed hedge along road boundary. Good integrity.	No action required at time of survey	>40	B2
HR 9019	Hawthorn, damson	2	2	205	80	M	G	Recently managed hedge along road boundary. Good integrity.	No action required at time of survey	>40	B2
HR 9020	Blackthorn, hawthorn, hazel, willow, wych elm, damson, field maple, ash, crack willow, dogrose, dogwood	3	5	1000	100	M	G	Slightly gappy at southern end, otherwise good density and integrity. Old hedgerow with many woody species. Potentially 'important hedgerow'. Water-filled ditch to side.	No action required at time of survey	>40	A3
HR 9021	Hawthorn, damson, dogrose	3	3	120	140	M	G	Good density with no gaps.	No action required at time of survey	>40	B2
HR 9022	Hawthorn	3	2.5	160	50	M	G	Good density with no gaps.	No action required at time of survey	>40	B2
HR 9023	Field maple, elder, hawthorn	2	2	135	80	M	G	Managed hedgerow adjacent to road. Good integrity with no gaps.	No action required at time of survey	>40	B2
HR 9024	Field maple, elder, hawthorn, blackthorn	2	2	145	80	M	G	Managed hedgerow adjacent to road. Good integrity with no gaps.	No action required at time of survey	>40	B2
HR 9025	Dogrose, blackthorn, hawthorn, elder, damson	3	2	165	80	M	G	Slightly scrappy appearance, but good integrity and no gaps. Adjacent to water-filled ditch.	No action required at time of survey	>40	B2
HR7001	Hawthorn, dog rose, elder, sycamore, alder	1.8	1.25		60	SM	F	Low hedgerow with several significant gaps along its length. Hedge becomes thicker as it progresses north, but losses diversity as alder dominates. Well maintained, but lacking in visual impact or significant habitat contribution	Replant gaps in hedge with suitable broadleaf species	20+	C2
HR7002	Hawthorn, dog rose, blackthorn, pedunculate oak, sycamore	1.7	1.5		50	SM	F	Low hedgerow with good foliage cover along length. Very few gaps/sparse areas. Well maintained	No management required at time of survey	20+	B2
HR7003	Hawthorn, ash, dog rose, blackthorn	2.4	2		75	EM	F	Well maintained thick hedgerow with no significant gaps or sparse areas	No management required at time of survey	20+	B2



CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR

RECOMMEND COMMENTARY OF GUIDE PILING FOR RIVER CROSSING SOUTH OF W6002 TO AVOID W6004

150m MIN STANDOFF REQUIRED FOR THESE TRUCKS TO ENSURE NOT AFFECTED BY PILE DRILL CONSTRUCTION

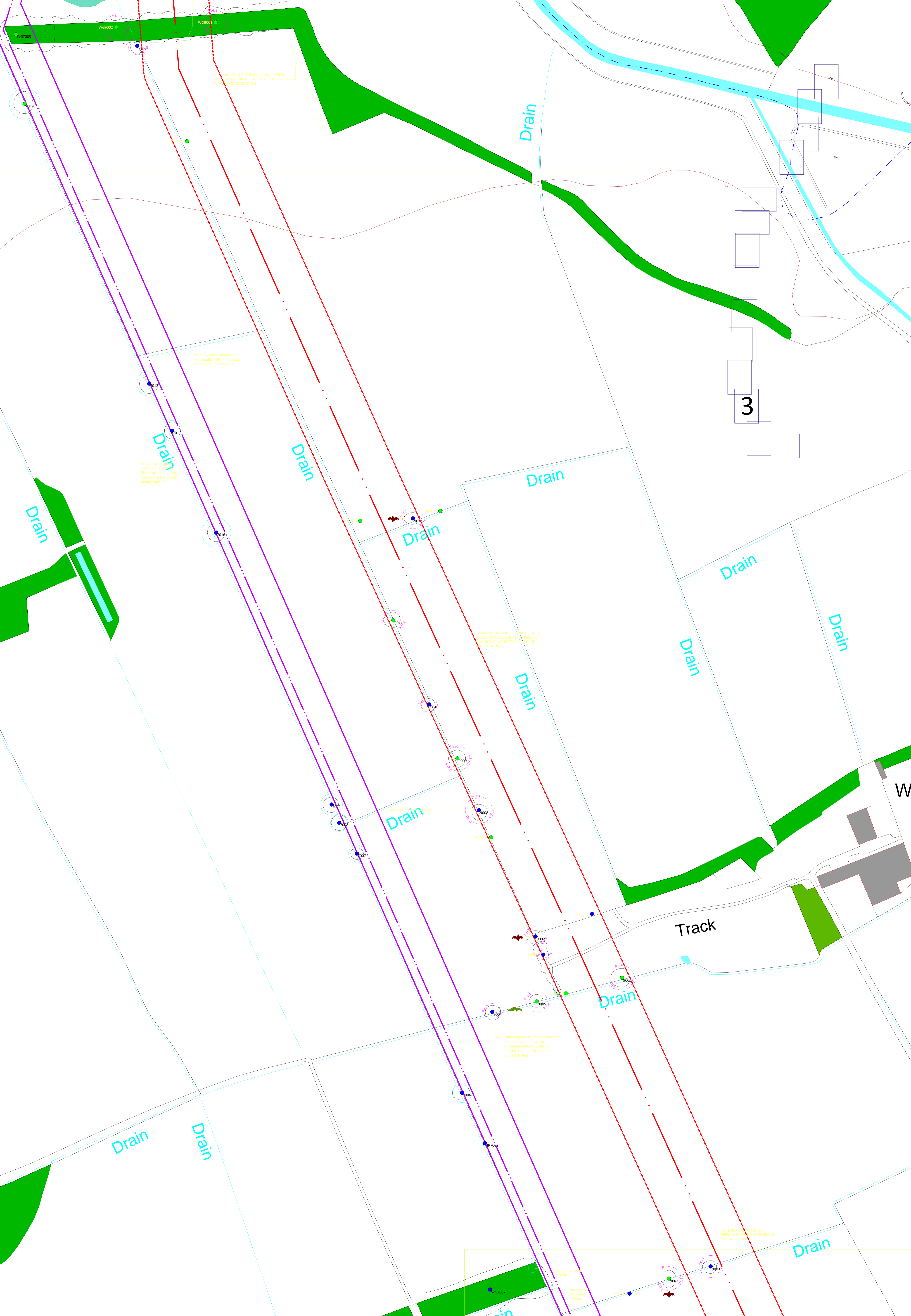
Ash/Hedgerow Hedgerow. Poor quality with many gaps and very young trees. C2

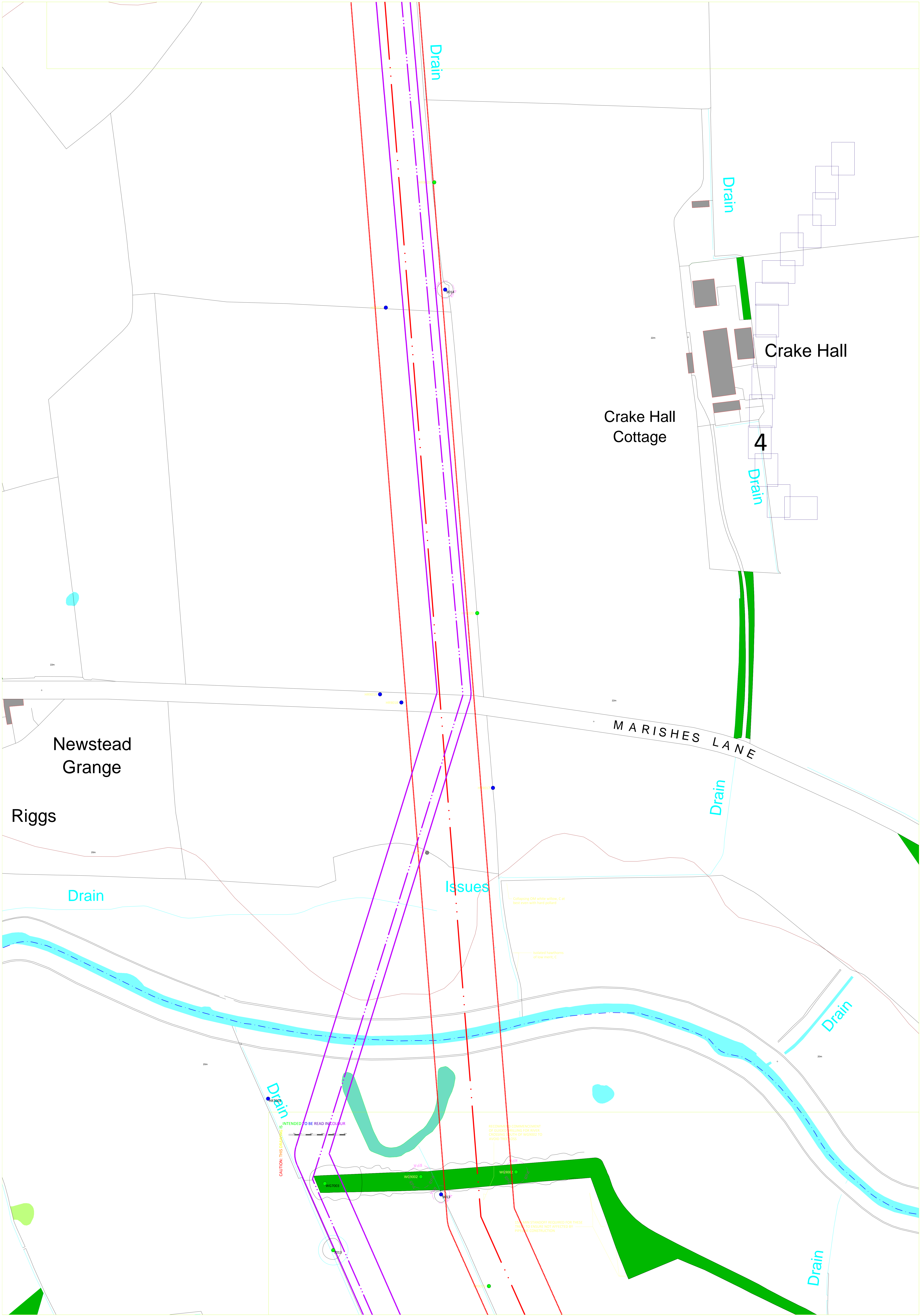
Hedgerow. Hedgerow. Elder. Very sparse and full of gaps along length. C2

10m MIN STANDOFF REQUIRED FOR THIS HEDGEROW & ASSOCIATED TREES TO REMAIN NOT AFFECTED BY PILE DRILL INSTRUCTION

Ditch appears to host permanent / semi permanent water. Amphibian habitat potential. Requires ecological check for ground drilling.

NOTE RPA LOCATES & SITE PIPELINE HEADS LOW CROSSING TO EAST OF 96





Drain

Drain

Crake Hall

Crake Hall Cottage

4

Drain

MARISHES LANE

Drain

Newstead Grange

Riggs

Drain

Issues

Collapsing DM white willow, C at least even with hard ground
Isolated Hawthorns of low merit, C

Drain

Drain

INTENDED TO BE READ IN COLOUR

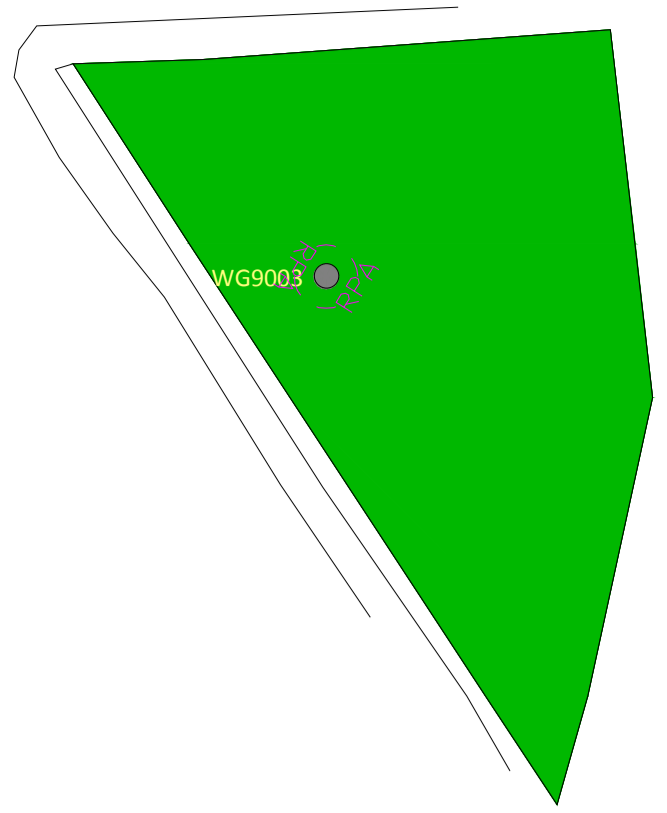
CAUTION: THIS DRAINAGE IS

RECOMMEND COMMENCEMENT OF GUIDANCE PILING FOR RIVER CROSSING WITHIN 10 WEEKS TO AVOID TRAFFIC LOSS

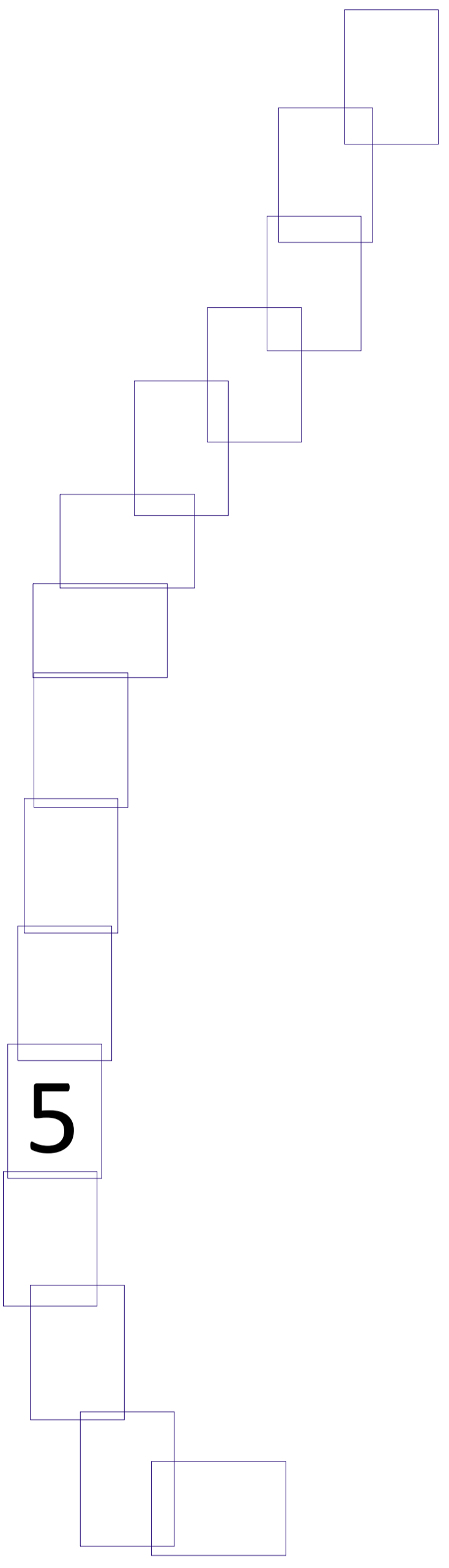
15M MIN STANDOFF REQUIRED FOR THESE PILES TO ENSURE NOT AFFECTED BY PRELIMINARY CONSTRUCTION

Drain

CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR



n Carr



RECOMMEND THE MAIN FANOUT OF FLOW TO FLOW TO TAWNY DRAINS

Proposed top of level from & above 1000mm further below

Deep water-filled ditch isolates trees to east from pipeline construction impacts

Friar Dike

Collects

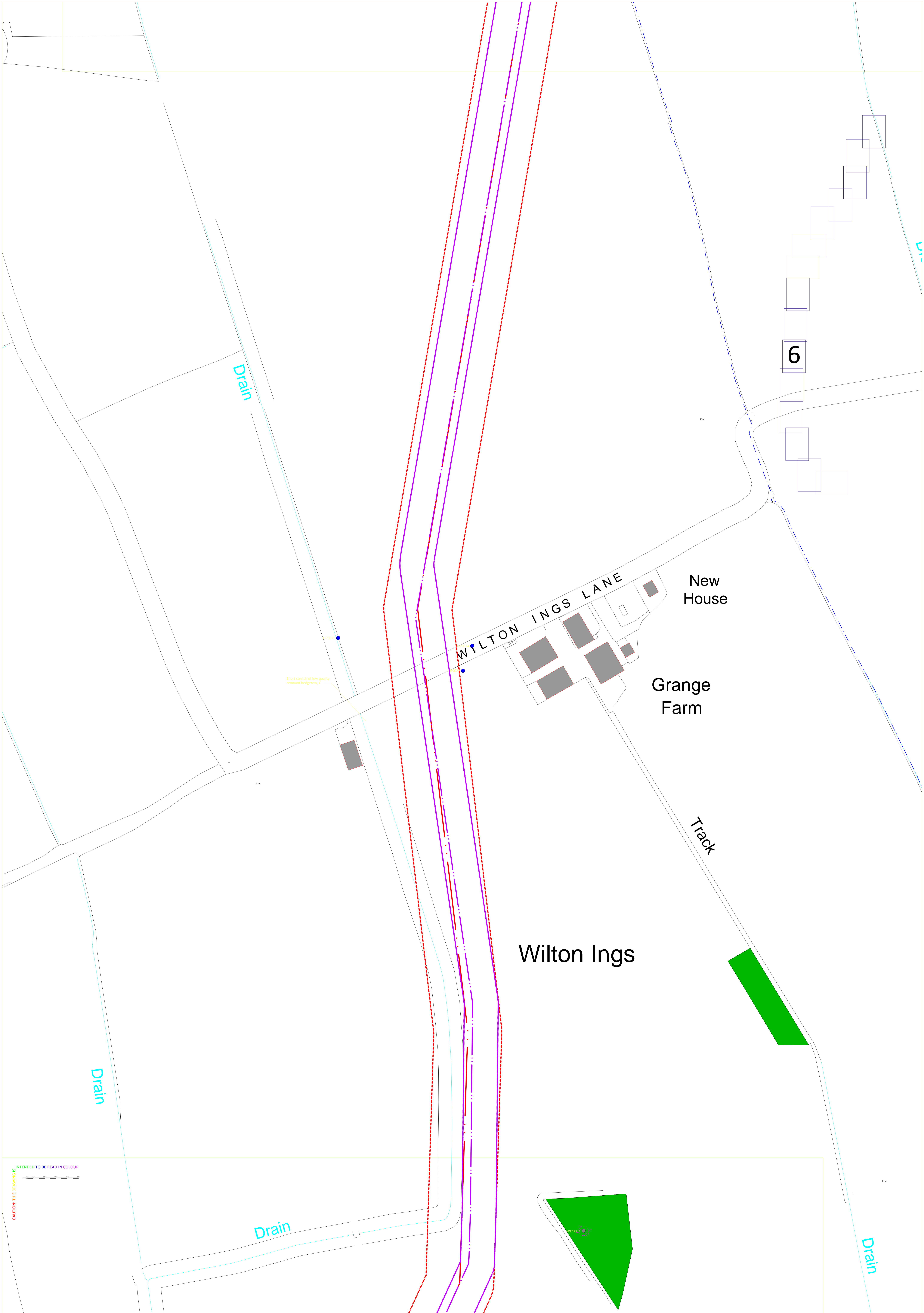
Drain

Drain

Drain

Dra

Allerston Loft



Drain

WILTON INGS LANE

New House

Grange Farm

Track

Wilton Ings

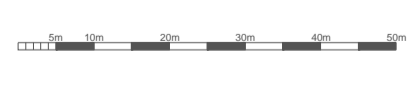
6

Drain

Drain

Drain

CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR



Short stretch of low quality remnant hedgerow, C

INTENDED TO BE READ IN COLOUR
CAUTION: THIS DRAWING IS

Weasdale
Quarry
(disused)

Track

10m 10% OFFSET REDDRESS TO
ENSURE THESE TREES
UNIMPACTED BY PIPELINE
CONSTRUCTION

Existing hedgerow remnant, L.
PREFERRED CROSSING POINT FOR
PIPELINE ROUTE, AS SHOWN

Cliff Edge
Farm

7

Allerston
Cliff

Drain

7 to 20m plantation
woodland

Ascent up to 830 1000 Wm on
slope from pipeline corridor

10m to west of trees in north
of 20m plantation from
construction impacts

Veteran oak sapling
within T09004.3

Veteran field maple at
north of T09004.1

Isolated M Hawthorn
hedgerow remnant.
Remnant from pipeline
corridor

Drain

Drain

Drain

Drain

No hedgerow present

Trees from & not affected by
pipe construction corridor

CG

Pit
(dis)

8

Allerston
Quarry
(disused)

Weas Dale

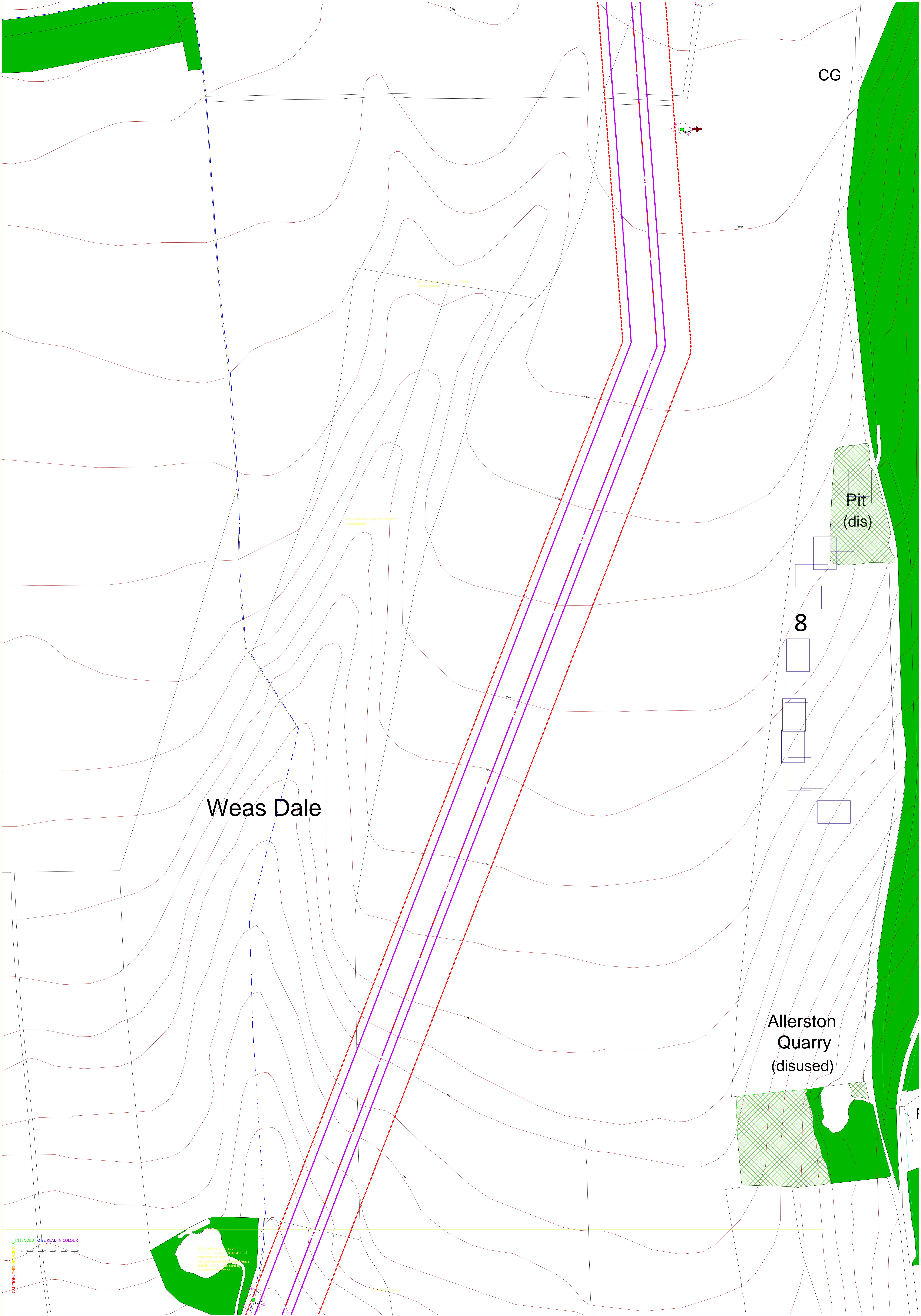
Mature trees to be removed from development

Mature trees to be removed from development

Proposed access road

CAUTION: THIS DRAWING IS INTENDED TO BE READ IN COLOUR

EM broadleaf vegetation in mid-pole stage, with occasional large mature trees. Soil has been covered by a fence & unlikely to be affected by proposed construction.



9

Quarry
(disused)

M Scots pine with altered signature
after adjacent clear-fell. Leans &
weighted to SW: at risk of
windthrow, C.

This woodland compartment
clear-felled after date of aerial
imagery.

WG9004

WG9004

WG9004

WG9000

WG9006

TO9009

This woodland compartment
remote from likely pipeline
construction impacts.

This woodland compartment
remote from likely pipeline
construction impacts.

Track

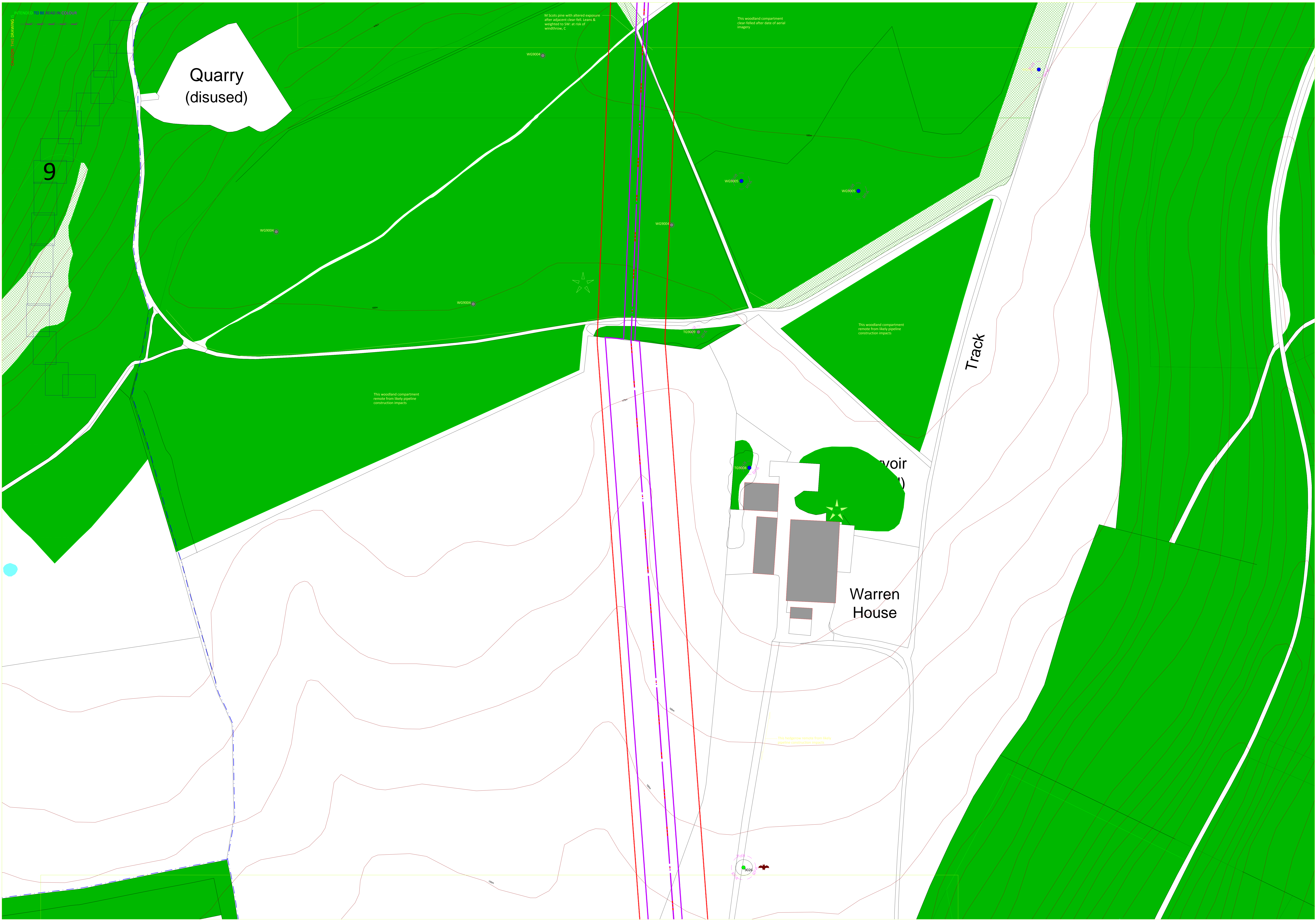
Reservoir

Warren
House

TO9000

This hedgesrow remote from likely
pipeline construction impacts.

9025





10

10

This woodland compartment remote from likely pipeline construction impacts

This woodland compartment remote from likely pipeline construction impacts

Track

Track

M Scots pine with altered exposure after adjacent clear-fell, stands & weighted to SW; at risk of windthrow, etc

This woodland compartment clear-felled after date of aerial imagery

This woodland compartment clear-felled after date of aerial imagery

WC9005

WC9006

WC9007

WC9008

WC9009

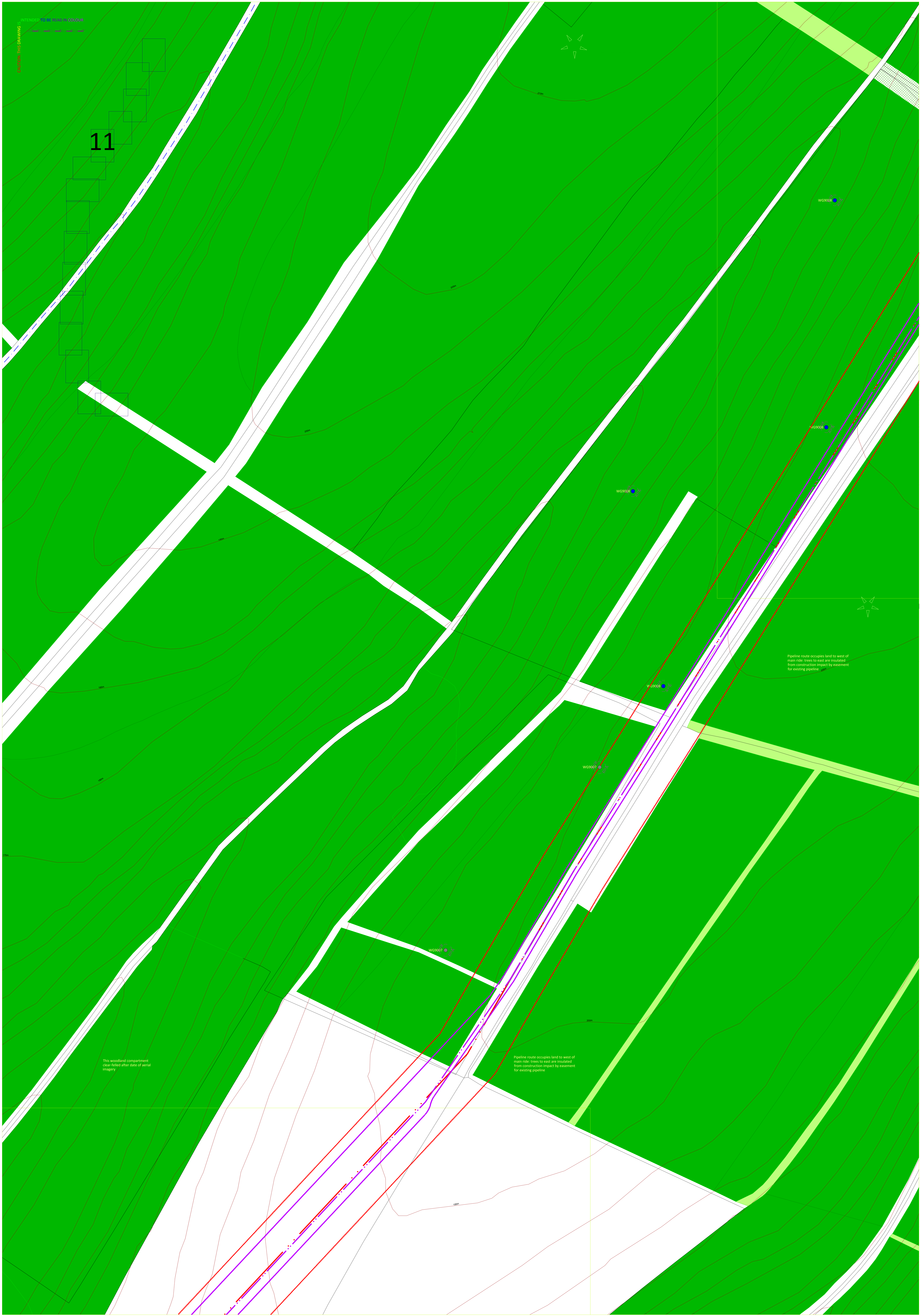
Woodland compartment clear-felled after date of aerial imagery

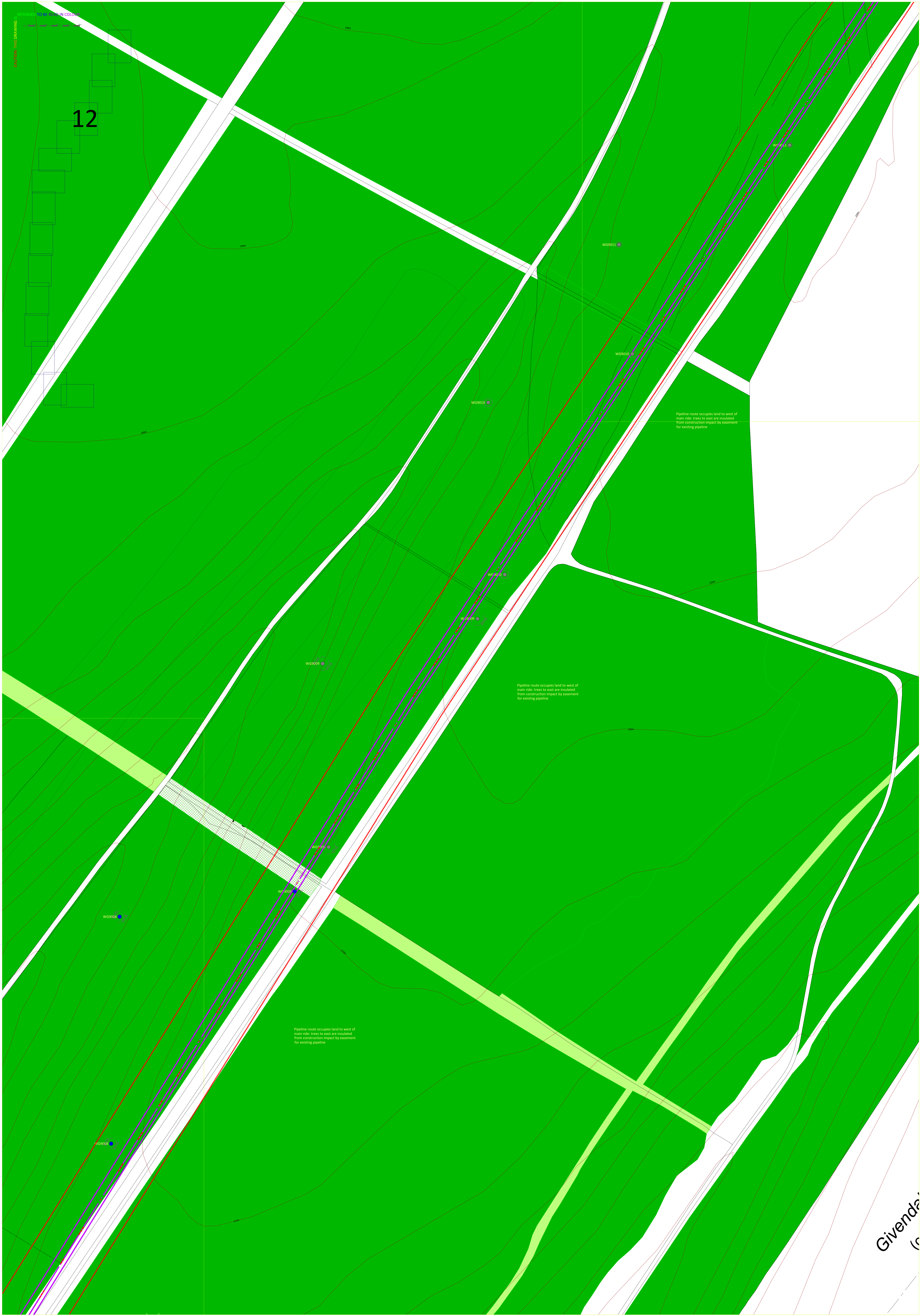
11

This woodland compartment
clear-felled after date of aerial
imagery

Pipeline route occupies land to west of
main ride; trees to east are insulated
from construction impact by easement
for existing pipeline

Pipeline route occupies land to west of
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Pipeline route occupies land to west of main ride; trees to east are insulated from construction impact by easement for existing pipeline

ATTENTION: THIS IS A DRAFT PLAN
DO NOT SCALE OR COPY

Area of clear-fell with young birch regrowth

Pipeline route occupies land to west of main ride: no impact expected to woodland to east

Track

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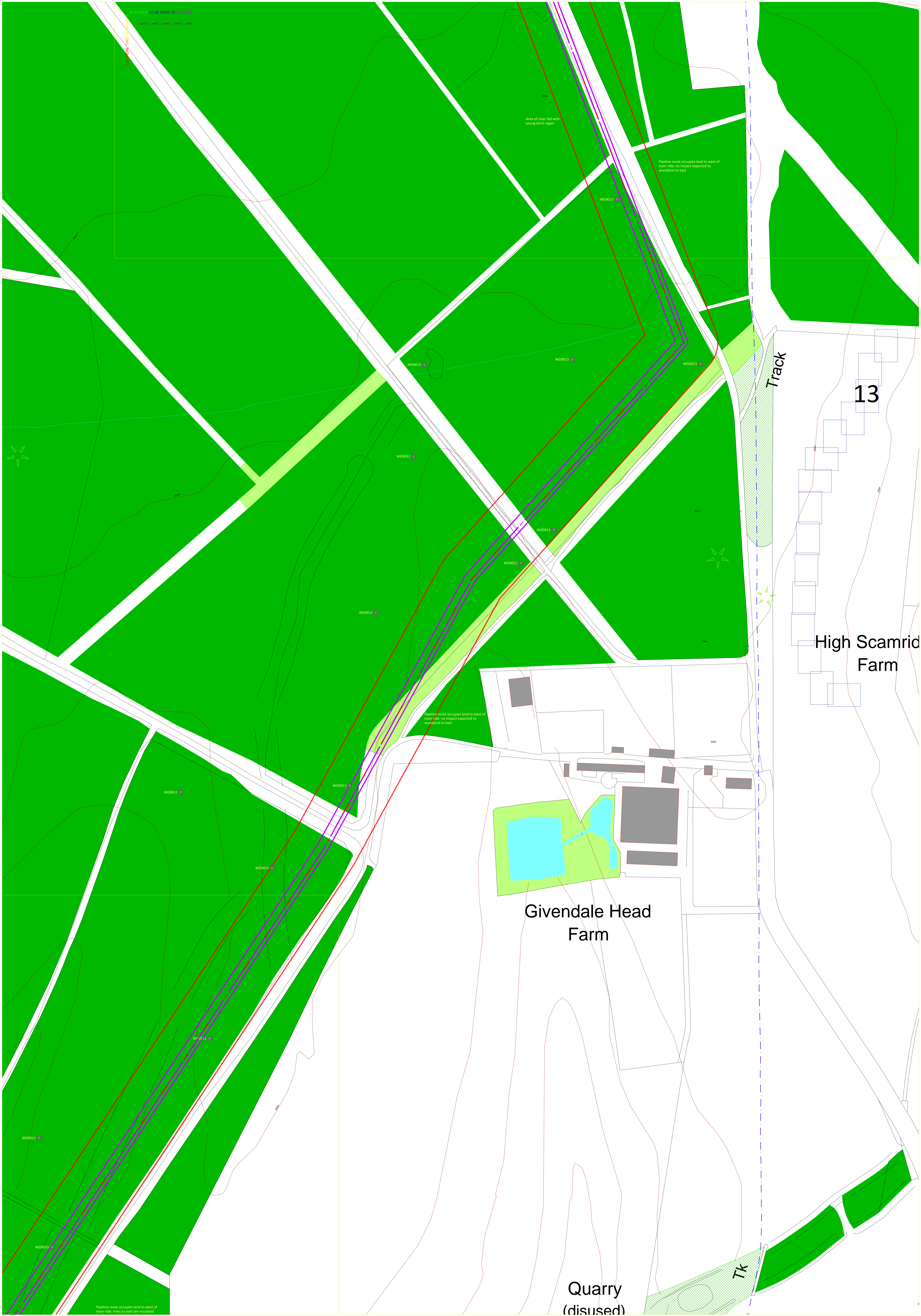
High Scamrid Farm

Givendale Head Farm

Quarry (disused)

TK

Pipeline route occupies land to west of main ride: trees to east are insulated





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DALBY FOREST DRIVE

DALBY FOREST DR

Ebberston Moor
'A' Wellsite

Lockton
Compound

Tumula

Track

Quar
(dis)

Ebberston Low Moor

