Llywodraeth Cymru / Welsh Government

A487 New Dyfi Bridge

Environmental Statement - Volume 3: Appendix 9.3

Tree Survey Report

Final Issue | 26 January 2016

Tree Survey

At

A487

New Dyfi Bridge

Machynlleth

Powys

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I have been instructed by Angharad Owen of Arup to carry out a survey on trees at A487 New Dyfi Bridge, Machynlleth, Powys.

Scope of Report

This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current good arboricultural practice.

The survey entailed a visual inspection from ground level of all trees.

Each tree has been numbered and, where instructed, for future identification on site, have been tagged using small durable metal or plastic tags.

Due to variations of existing ground levels through the site, height dimensions are estimated and are given in metres. Accurate heights, measured with the aid of optical instruments can be provided where instructed.

Trunk/stem diameters are measured at 1.5 metres above ground level, or immediately above the root flare for multi-stemmed trees.

Estimate branch spread is taken in metres from the centre of the trunk, at the four cardinal points of a compass, to achieve an accurate representation of crown shape.

An assessment of a tree's age classification is made in terms of it maturity within the site's landscape.

An assessment of a tree's physiological condition is to be made as good, fair, poor, dead.

Data on the structural condition of the tree should be entered, e.g., collapsing, leaning and the presence of any decay or physical defect should be noted.

Preliminary management recommendations include further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.

An assessment of a tree's future life expectancy is made as <10, 10-20, 20-40 or >40 etc.

Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
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 U category trees (i.e. 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		
	1 Mainly Arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation
Category A Those 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 essential components of groups, or of 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 Those 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 benefits
Category C Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	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

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T1	Ash (Fraxinus excelsior)	11	Multi	0.65	8	4	6	6	3	Middle aged	Fair to poor	Twin stemmed specimen of variable form. Main stem heavily colonised by ivy thus preventing full inspection. Dead branch extending to west, may have led to commencement of internal decay. Some dead wood within crown.	Sever ivy at base. Prune to remove major deadwood. Monitor for health.	10-20	C
T2	Ash (Fraxinus excelsior)	12	Single	0.43	7	6	0	5	2	Middle aged	Fair to poor	Tree of variable form with crown more heavily developed on northern side due to suppression by adjacent specimen	Monitor for safety	20-40	C
T3	Ash (Fraxinus excelsior)	12	Single	0.47	3	7	6	7	3	Middle aged	Fair to poor	Tree of reasonable form with evidence of disturbance of rooting area which may lead to a decline in health	Monitor for safety	10-20	C
T4	Ash (Fraxinus excelsior)	11	Single	0.41	4	6	6	0	4	Middle aged	Fair to poor	Tree of variable form with evidence of disturbance of rooting area which may lead to a decline in health at a later date	Monitor for safety	10-20	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T5	Ash (Fraxinus excelsior)	13	Single	0.61	7	3	5	5	4	Middle aged	Fair to poor	Tree of variable form with evidence of disturbance of rooting area which may lead to a decline in health at a later date. Poor quality pruning wound on lower stem may lead to commencement of internal decay. Extensive ivy colonisation on main stem and lower crown prevents full inspection.	Sever ivy at base. Monitor for safety.	10-20	C
G6	Group of 3 Leyland Cyprus (Cupressocyparis leylandil)	9	Single	0.3	2	2	2	2	1	Middle aged	Fair to poor	Trees of variable form with some evidence of thinning and die-back within crowns possibly associated with disturbance of rooting areas	Monitor for health	10-20	C
T7	Ash (Fraxinus excelsior)	7	Single	0.25	3	3	3	3	2	Young	Fair to poor	Self-sown specimen of variable form. Main stem divides at 2m leading to twin-stemmed mid-crown.	Monitor for safety	10-20	C
G8	Group of 2 Himalayan Birch (Betula utilis jacquemontii)	5	Multi	0.25	2	2	2	2	2	Young	Fair to poor	Multi-stemmed ornamental specimen planted in relation to recent landscaping	No action required at this time	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T9	Ash (Fraxinus excelsior)	12	Multi	1	6	6	5	5	3	Middle aged	Fair to poor	Multi-stemmed specimen of variable form. Evidence of some inclusion within lower forks which may lead to failure at a later date.	Monitor for safety	10-20	C
T10	Douglas Fir (Pseudotsuga menziesii)	11	Single	0.36	4	4	4	4	3	Middle aged	Fair to poor	Tree of variable form with poor quality pruning in lower crown	Monitor for safety	10-20	C
T11	Ash (Fraxinus excelsior)	12	Single	0.7	7	7	6	6	2	Middle aged	Fair to poor	Tree of variable form. Main stem heavily colonised by ivy thus preventing full inspection. Evidence of storm damage and poor quality pruning in lower crown which may have led to commencement of internal decay within main stems.	Sever ivy at base. Monitor for health.	10-20	C
T12	Ash (Fraxinus excelsior)	13	Multi	0.9	10	6	6	7	3	Middle aged	Poor	Twin-stemmed specimen of poor form. Ground levels have been raised at base thus causing die-back in upper crown and decay at base of main stems. This specimen is unsafe for retention.	Remove	<10	U

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T13	Ash (Fraxinus excelsior)	12	Multi	0.7	6	4	5	4	4	Middle aged	Fair to poor	Multi-stemmed specimen of variable form. Main stems heavily colonised by ivy thus preventing full inspection. Evidence of thinning and die-back in upper crown.	Monitor for health	10-20	C
T14	Ash (Fraxinus excelsior)	9	Multi	0.55	6	4	5	1	3	Middle aged	Poor	Tree of poor form with extensive decay throughout main stem due to ash cankers. This specimen is unsafe for retention.	Remove	<10	U
T15	Ash (Fraxinus excelsior)	5	Multi	0.25	2	2	2	2	2	Young	Poor	Twin-stemmed specimen of poor form with severe basal inclusion that will lead to failure in the near future.	Remove	<10	U
T16	Alder (Alnus glutinosa)	7	Multi	0.25	3	3	3	3	2	Young	Fair to poor	Multi-stemmed specimen of variable form with poor quality pruning in lower crown	Prune to remove epicormics shoots and stubs. Monitor for health.	10-20	C
T17	Grey Poplar (Populus canescens)	8	Single	0.32	2	3	3	3	2	Young	Poor	Tree of poor form with extensive poor quality pruning in lower crown. This specimen is unsuitable for retention.	Remove	<10	U

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T18	Alder (Alnus glutinosa)	7	Multi	0.3	2	2	2	2	2	Young	Poor	Twin-stemmed specimen of poor form with severe basal inclusion that will lead to failure within the near future	Remove	<10	U
G19	Group of Crack Willow (Salix fragilis)	2	Multi	0.35	1	1	1	1	0	Middle aged	Fair to poor	Heavily pruned gappy hedgerow sited on raised bank	Trim annual growth from top and sides	10-20	C
T20	Birch (Betula pendula)	11	Single	0.33	3	3	4	4	2	Middle aged	Fair	Notable specimen of reasonable form	No action required at this time	20-40	B2
G21	Group of Alder (Alnus glutinosa)	13	Multi	0.6	5	5	5	5	2	Middle aged	Fair to poor	Multi-stemmed specimens of variable form	Monitor for safety in relation to adjacent highway	10-20	C
G22	Group of Ash (Fraxinus excelsior), Alder (Alnus glutinosa), Goat Willow (Salix caprea) and Elm (Ulmus spp)	9	Multi	0.3	3	3	3	3	1	Middle aged	Fair to poor	Scrubby specimens of variable form acting as screen for adjacent garden centre	Monitor for safety	10-20	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G23	Group of Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) and Ash (Fraxinus excelsior)	7	Multi	0.3	3	3	3	3	1	Middle aged	Fair to poor	Scrubby specimens of variable form	No action required at this time	10-20	C
T24	Ash (Fraxinus excelsior)	9	Multi	0.65	5	3	7	3	2	Middle aged	Fair to poor	Scrubby specimen of variable form. Evidence of storm damage in lower crown which may have led to commencement of internal decay.	Monitor for safety	10-20	C
T25	Ash (Fraxinus excelsior)	9	Multi	0.45	5	5	3	1	2	Middle aged	Poor	Tree of poor form with extensive die-back throughout crown. This specimen is unsafe for retention	Remove	<10	U
G26	Group of Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	2	Multi	0.2	1	1	1	1	0	Middle aged	Fair to poor	Gappy hedgerow that has been tightly flailed	Trim annual growth from top and sides	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G27	Group of Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) and Ash (Fraxinus excelsior)	7	Multi	0.2	2	2	2	2	0	Middle aged	Fair to poor	Gappy hedgerow containing scrubby specimens	No action required at this time	10-20	C
G28	Group of Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	1	Multi	0.2	1	1	1	1	0	Middle aged	Fair to poor	Gappy hedgerow that has been tightly flailed	Trim annual growth from top and sides	20-40	C
G29	Group of Hawthorn (Crataegus monogyna) and Goat Willow (Salix caprea)	7	Multi	0.25	3	3	3	3	1	Middle aged	Fair to poor	Gappy hedgerow containing scrubby specimens	No action required at this time	20-40	C
T30	Hawthorn (Crataegus monogyna)	6	Multi	0.6	3	2	3	4	1	Mature	Fair to poor	Notable specimen, scrubby habit.	No action required at this time	20-40	C2

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T31	Ash (Fraxinus excelsior)	10	Multi	0.7 (estimate)	6 est	6 est	6 est	6 est	3	Middle aged	Fair to poor	Inaccessible tree. Unable to accurately survey or measure. Evidence of potential basal decay.	Re-survey when access is available	10-20 (provisional)	C (provisional)
T32	Ash (Fraxinus excelsior)	11	Multi	0.8 (estimate)	6 est	6 est	6 est	6 est	4	Middle aged	Fair to poor	Inaccessible tree. Unable to accurately survey or measure. Twin-stemmed specimen of reasonable form.	Re-survey when access to land is available	20-40 (provisional)	C2 (provisional)
G33	Group of Goat Willow (Salix caprea), Hawthorn (Crataegus monogyna) and Ash (Fraxinus excelsior)	Up to 7m	Multi	0.35	3	3	3	3	1	Middle aged	Fair to poor	Inaccessible trees and shrubs. Unable to accurately survey. Scrubby specimens forming gappy hedgerow.	Re-survey when access is available	20-40	C
G34	Group of Hawthorn (Crataegus monogyna), Ash (Fraxinus excelsior) and Elder (Sambucus nigra)	6	Multi	0.25	2	2	2	2	1	Middle aged	Fair to poor	Structural specimens forming gappy hedgerow	No action required at this time	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G35	Group of Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) and Ash (Fraxinus excelsior)	5	Multi	0.3	2	2	2	2	0	Middle aged	Fair to poor	Scrubby specimens of generally poor form creating gappy hedgerow. Some specimens have collapsed.	Remove collapsed specimens	10-20	C
T36	Ash (Fraxinus excelsior)	14	Single	0.55	3	5	6	6	4	Middle aged	Poor	Tree of variable form with extensive die-back throughout crown due to presence of ash cankers which have also created internal decay within main stem. This specimen is unsafe for retention.	Remove	<10	U
T37	Ash (Fraxinus excelsior)	14	Single	0.6	7	9	3	6	2	Middle aged	Poor	Tree of variable form with extensive die-back throughout crown due to presence of ash cankers which have also led to commencement of internal decay within main stem. This specimen is unsafe for retention.	Remove	<10	U

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T38	Ash (Fraxinus excelsior)	11	Single	0.41	8	6	0	3	2	Middle aged	Poor	Tree of poor form leaning extensively to north. This specimen will become unstable due to removal of adjacent trees.	Remove	<10	U
T39	Ash (Fraxinus excelsior)	16	Single	0.91	11	10	9	10	2	Mature	Fair	Notable specimen of reasonable form. Minor stem close to base has limited decay which may extend into the base of this specimen. Some branches excessively end-weighted may become at risk of structural failure.	Prune to remove major dead wood. Shorten any excessively end-weighted lateral branches by 2-3m. Monitor for health	20-40	B2
T40	Ash (Fraxinus excelsior)	16	Single	0.71	9	8	8	8	3	Mature	Fair	Notable specimen of good form. Main stem heavily colonised by ivy thus preventing full inspection. Some dead wood within crown.	Sever ivy at base. Prune to remove major dead wood. Monitor for safety.	>40	B2
T41	Ash (Fraxinus excelsior)	16	Multi	0.9	8	6	5	7	3	Middle aged	Fair to poor	Multi-stemmed specimen of variable form that has suffered poor quality pruning in mid-crown due to adjacent overhead cables	Monitor for safety	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G42	Group of Hawthorn (Crataegus monogyna) and Goat Willow (Saliz caprea)	5	Multi	0.35	4	4	4	4	1	Middle	Fair to poor	Scrubby specimens forming gappy hedgerow	No action required at this time	10-20	C
T43	Ash (Fraxinus excelsior)	14	Multi	0.75 (estim-ate)	6	6	6	5	2	Middle aged	Fair to poor	Inaccessible specimen thus preventing full inspection and accurate measurement. Multi-stemmed specimen of variable form.	Re-survey when access is available	20-40 (provisional)	C (provisional)
G44	Group of Ash (Fraxinus excelsior)	8	Multi	0.4 (estim-ate)	4 est	4 est	4 est	4 est	1	Middle aged	Fair to poor	Inaccessible specimens thus preventing full inspection and accurate measurement.	Re-survey when access is available	10-20 (provisional)	C (provisional)
G45	Group of Hawthorn (Crataegus monogyna)	3	Multi	0.2	2	2	2	2	1	Middle aged	Fair to poor	Inaccessible trees thus preventing full inspection. Scrubby specimens forming gappy hedgerow.	Re-survey when access is available	10-20 (provisional)	C (provisional)
G46	Group of 2 Ash (Fraxinus excelsior)	5	Single	0.15	2	2	2	2	2	Young	Fair	Young specimens of reasonable form	No action required at this time	>40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G47	Group of Hawthorn (Crataegus monogyna) and Ash (Fraxinus excelsior)	4	Multi	0.2	1	3	1	1	0	Middle aged	Fair to poor	Scrubby specimens of variable form with crown more heavily developed on eastern side	No action required at this time	20-40	C
G48	Group of Hawthorn (Crataegus monogyna) and Elder (Sambucus nigra)	1	Multi	0.1	1	1	1	1	0	Middle aged	Fair to poor	Gappy hedgerow that has been tightly flailed	No action required at this time	20-40	C
G49	Group of Ash (Fraxinus excelsior)	20	Single	1.0 (estimate)	10	10	9	9	2	Mature	Poor (provisional)	Trees situated on inaccessible land thus preventing full inspection and accurate measurements. Evidence of severe internal decay in all specimens that may render these trees unsafe for retention.	Re-survey when access is available	<10 (provisional)	U (provisional)

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T50	Ash (Fraxinus excelsior)	18	Multi	0.8 (estimate)	10 est	4 est	9 est	7 est	2 est	Mature	Fair to poor	Tree situated on inaccessible land thus preventing full inspection and accurate measurement. This specimen has previously suffered storm damage that has led to some decay within southern-most stem.	Re-survey when access is available	10-20 (provisional)	C (provisional)
T51	Ash (Fraxinus excelsior)	19	Multi	1 (estimate)	9 est	13 est	10 est	3 est	3 est	Mature	Fair to poor	Tree situated on inaccessible land thus preventing full inspection and accurate measurement. Evidence of die-back and thinning throughout crown.	Re-survey when access is available	10-20 (provisional)	C (provisional)
G52	Group of Hawthorn (Crataegua monogyna) and Goat Willow (Salix caprea)	6	Multi	0.35	1	2	4	1	1	Middle aged	Fair to poor	Scrubby specimens of variable form with crowns more heavily developed on southern and eastern side	No action required at this time	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T53	Ash (Fraxinus excelsior)	19	Multi	1.1 (estimate)	11 est	11 est	10 est	8 est	2 est	Mature	Fair to poor (provisional)	Tree situated on inaccessible land thus preventing full inspection and accurate measurement. Notable specimen of reasonable form. Some evidence of potential inclusion within lower fork.	Re-survey when access is available	20-40 (provisional)	C2 (provisional)
T54 `	Ash (Fraxinus excelsior)	20	Single	0.8 (estimate)	10 est	11 est	8 est	8 est	2 est	Mature	Poor (provisional)	Tree situated on inaccessible land thus preventing full inspection and accurate measurement. Notable specimen with extensive decay throughout major limbs and main stem. It appears that this specimen is unsafe for retention.	Re-survey to confirm diagnosis	<10 (provisional)	U (provisional)
T55	Ash (Fraxinus excelsior)	4	Single	0.1	2	1	0	0	3	Young	Poor	Tree of poor form with evidence of decay within main stem	Remove	<10	U
T56	Ash (Fraxinus excelsior)	6	Single	0.4	3	1	0	1	1	Young	Poor	Coppice re-growth from failed stem. Extensive decay indicates that this specimen will fail in the near future.	Remove	<10	U

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T57	Crack Willow (Salix fragilis)	9	Single	0.8	6	4	1	4	2	Mature	Poor	Tree of poor form with massive basal decay. This specimen is likely to fail in the near future.	Remove	<10	U
T58	Dead														
G59	Group of Ash (Fraxinus excelsior)	9	Single	0.15	3	3	3	3	2	Young	Fair to poor	Closely spaced, self-sown young species that are unable to develop to form maturity in this configuration.	Monitor for stability	10-20	C
T60	Ash (Fraxinus excelsior)	14	Multi	1.2	7	8	7	8	2	Middle aged	Fair to poor	Triple-stemmed specimen of variable form. Notable tree with evidence of thinning and die-back in upper crown.	Monitor for health with a view to undertaking some form of crown reduction in order to minimise risk of structural failure	20-40	C2
G61	Group of Goat Willow (Salix caprea)	3	Multi	0.4	10	2	0	2	0	Middle aged	Poor	Group of dead and collapsed specimens	Remove	<10	U
G62	Group of Hawthorn (Crataegus monogyna) and Ash (Fraxinus excelsior)	7	Multi	0.25	2	2	2	2	1	Middle aged	Fair to poor	Scrubby specimens forming gappy hedgerow	No action required at this time	10-20	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T63	Ash (Fraxinus excelsior)	19	Single	0.9	10	12	9	9	2	Mature	Fair	Notable specimen of reasonable form that has suffered some structural failure in lower crown due to heavily end-weighted lateral branches	Undertake 15% overall crown reduction. Prune to remove damaged branches. Monitor for safety.	20-40	B2
T64	Ash (Fraxinus excelsior)	14	Single	0.34	5	5	4	3	4	Middle aged	Fair	Tree of good form with well-balanced crown	No action required at this time	>40	B
G65	Group of Hawthorn (Crataegus monogyna) and Holly (Ilex aquifolium)	4	Multi	0.3	2	3	1	1	1	Middle aged	Fair to poor	Scrubby specimens forming gappy hedgerow with crowns more heavily developed on northern and eastern sides. Some stems partially collapsed.	Remove partially collapsed stems	20-40	C
T66	Ash (Fraxinus excelsior)	9	Multi	0.4	5	7	3	3	2	Middle aged	Fair to poor	Twin-stemmed specimen, scrubby habit	No action required at this time	20-40	C
G67	Group of Hawthorn (Crataegus monogyna), Holly (Ilex aquifolium and Ash (Fraxinus excelsior)	5	Multi	0.3	2	3	1	1	0	Middle aged	Fair to poor	Scrubby specimens forming gappy hedgerow with crowns more heavily developed on eastern side. Some stems dead or dying.	Remove dead or dying stems	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T68	Ash (Fraxinus excelsior)	8	Multi	0.4	4	4	4	4	2	Middle aged	Poor	Tree of poor form with massive animal damage on main stem which has led to commencement of internal decay	Remove	<10	U
T69	Hazel (Corylus avellana)	4	Multi	0.4	1	1	1	1	1	Middle aged	Fair to poor	Multi-stemmed coppice specimen of variable form	No action required at this time	10-20	C
G70	Group of Hawthorn (Crataegus monogyna)	3	Multi	0.25	2	2	2	2	2	Middle aged	Fair to poor	Scrubby specimens of variable form	No action required at this time	10-20	C
T71	Oak (Quercus robur)	13	Multi	1	3	11	11	3	2	Mature	Fair to poor	Twin-stemmed specimen of variable form that has suffered extensive storm damage which has led to commencement of internal decay. Extensive die-back in upper crown.	Undertake 20% overall crown reduction. Prune to remove major deadwood. Monitor for health.	20-40	C
T72	Ash (Fraxinus excelsior)	10	Single	0.29	0	2	3	0	5	Middle aged	Poor	Tree of poor form leaning extensively to south. This specimen may become unstable.	Remove	<10	U
T73	Oak (Quercus robur)	11	Single	0.9	13	3	9	1	3	Mature	Fair to poor	Tree of variable form with crown extending excessively to the north. This specimen is at risk of structural failure due to heavy end-weight of some lateral branches.	Reduce heavily end-weighted lateral branches by 3-4m to minimise risk of further structural failure	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T74	Dead														
T75	Ash (Fraxinus excelsior)	10	Single	0.2	2	2	2	2	3	Middle aged	Fair to poor	Tree of poor form with misshapen main stem	Monitor for safety	10-20	C
T76	Ash (Fraxinus excelsior)	11	Single	0.25	4	3	1	2	6	Middle aged	Fair	Tree of reasonable form	No action required at this time	>40	B
T77	Ash (Fraxinus excelsior)	10	Single	0.34	3	3	3	3	3	Middle aged	Poor	Tree of variable form with extensive ash cankers throughout the main stem. This specimen is at risk of failure.	Remove	<10	U
T78	Ash (Fraxinus excelsior)	15	Multi	0.8	7	7	7	7	3	Mature	Fair	Notable specimen of good form with well-balanced crown	No action required at this time	>40	B
G79	Group of Hazel (Corylus avellana) and Hawthorn (Crataegus monogyna)	7	Multi	0.35	3	3	3	3	2	Middle aged	Fair to poor	Scrubby specimens of variable form	No action required at this time	20-40	C
T80	Elder (Sambucus nigra)	3	Multi	0.2	0	2	0	0	2	Middle aged	Poor	Tree of poor form that has partially collapsed	Remove	<10	U

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T81	Ash (Fraxinus excelsior)	17	Multi	1	11	10	8	4	5	Mature	Fair to poor	Triple-stemmed specimen of variable form. Evidence of thinning and die-back throughout crown.	Undertake 20% overall crown reduction to minimise risk of structural failure. Monitor for health.	20-40	C
T82	Ash (Fraxinus excelsior)	15	Single	0.57	3	9	6	3	3	Middle aged	Fair to poor	Tree of reasonable form with evidence of mechanical damage on main stem	Monitor for health.	20-40	C
T83	Ash (Fraxinus excelsior)	14	Multi	0.55	3	8	5	2	5	Middle aged	Poor	Twin-stemmed specimen of variable form. Evidence of basal decay. This specimen is at risk of failure to the east.	Remove	<10	U
T84	Hawthorn (Crataegus monogyna)	6	Multi	0.3	2	2	2	2	2	Middle aged	Fair to poor	Hedgerow specimen of variable form	No action required at this time	20-40	C
T85	Ash (Fraxinus excelsior)	10	Single	0.32	3	3	1	0	5	Middle aged	Fair to poor	Tree of variable form with evidence of mechanical damage on base of main stem	Monitor for safety	10-20	C
G86	Group of Sycamore (Acer pseudoplatanus) and Ash (Fraxinus excelsior)	17	Single	0.4	4	4	4	4	3	Middle aged	Fair to poor	Line of trees situated on embankment. Some die-back within upper crowns.	Prune to remove major dead wood. Monitor for health.	20-40	C

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
T87	Ash (Fraxinus excelsior)	9	Multi	0.35	0	10	0	0	3	Middle aged	Poor	Tree of poor form leaning extensively to east. This specimen may become at risk of failure.	Remove	<10	U
T88	Ash (Fraxinus excelsior)	14	Multi	0.5	5	5	5	5	3	Middle aged	Fair to poor	Twin-stemmed specimen of variable form.	Monitor for safety	20-40	C
T89	Ash (Fraxinus excelsior)	13	Multi	0.6	2	1	3	5	4	Middle aged	Poor	Twin-stemmed specimen with evidence of severe basal inclusion. Evidence of thinning and die-back throughout crown. This specimen is unsuitable for retention.	Remove	<10	U
T90	Ash (Fraxinus excelsior)	10	Single	0.35	0	0	0	9	4	Middle aged	Poor	Suppressed specimen of poor form leaning extensively to the west.	Remove	<10	U
T91	Ash (Fraxinus excelsior)	14	Single	0.39	3	2	2	3	8	Middle aged	Fair	Tree of reasonable form with no obvious structural defects	No action required at this time	<40	B
T92	Ash (Fraxinus excelsior)	14	Multi	0.75	8	6	3	7	3	Middle aged	Fair to poor	Multi-stemmed specimen of variable form. Some evidence of thinning and die-back in upper crown. Main stem heavily colonised by ivy thus preventing full inspection.	Sever ivy at base. Prune to remove major dead wood. Monitor for safety.	10-20	C

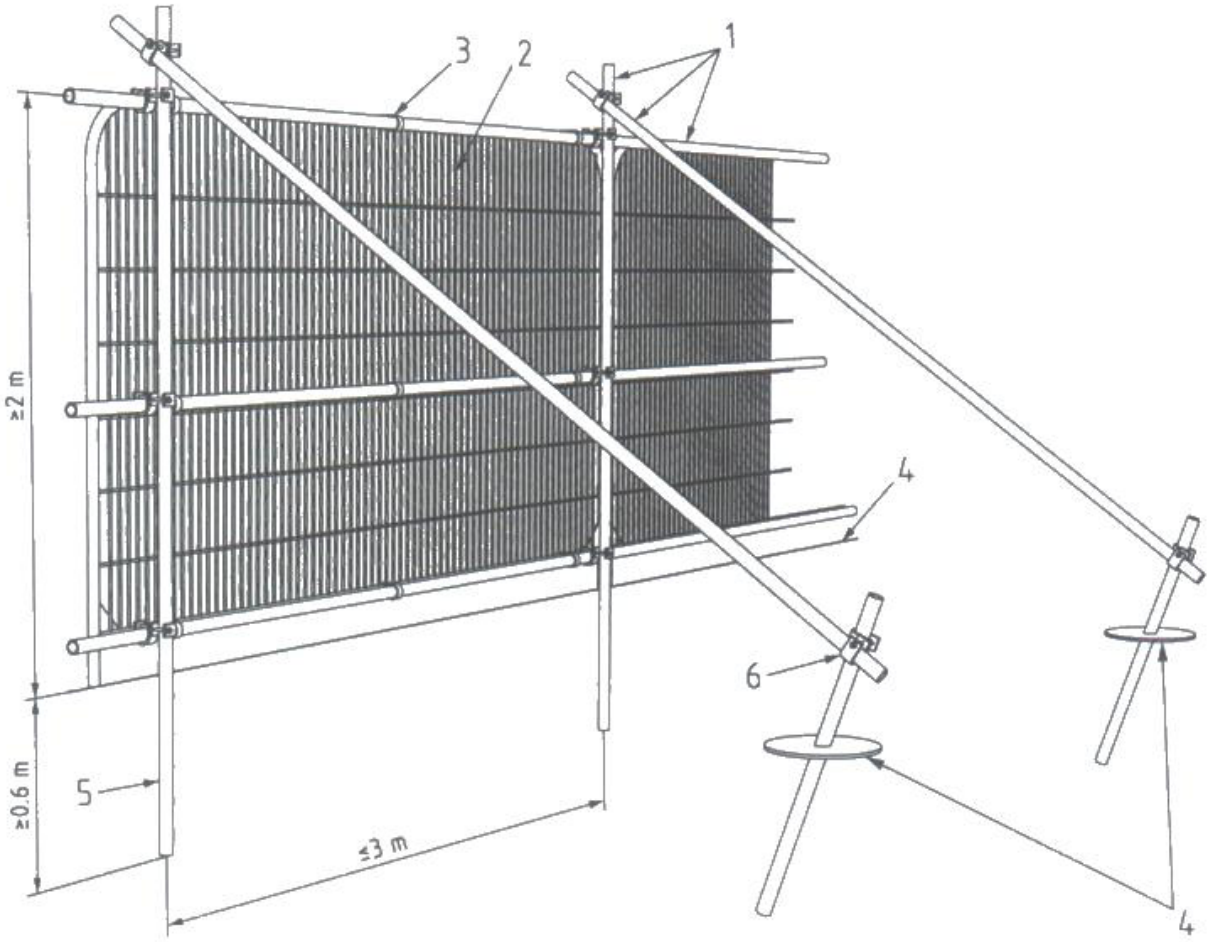
Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G93	Group of Oak (Quercus robur)	19	Single	0.8	10	10	10	10	3	Mature	Good to fair	Woodland edge trees of good form, notable within the landscape	No action required at this time	<40	B2
G94	Group of Hawthorn (Crataegus monogyna), Holly (Ilex aquifolium and Hazel (Corylus avellana)	2	Multi	0.1	1	1	1	1	0	Young	Fair	Newly planted hedgerow which has been tightly flailed	No action required at this time	>40	C
G95	Group of Oak (Quercus robur), Ash (Fraxinus excelsior), Alder (Alnus glutinosa) and Goat Willow (Salix caprea)	Up to 14m	Single and multi	Up to 0.75	4	4	9	3	3	Middle aged	Fair to poor	Generally scrubby specimens sited on steep riverbank	No action required at this time	20-40	C2

Tree No.	Species	Height(m)	Single/Multi Stemmed	Stem Diameter(m)	Branch Spread(m)				Height of Crown(m)	Age	Physiological Condition	Structural Condition	Prel. Man. Recommendations	Est. Remaining Contribution	Category
					N	E	S	W							
G96	Group of Goat Willow (Salix caprea), Alder (Alnus glutinosa), Birch (Betula pendula) and Ash (Fraxinus excelsior)	7	Single and Multi	Up to 0.5	3	3	3	3	2	Middle aged	Fair to poor	Scrubby specimens established on edge of river bank	No action required at this time	10-20	C

Recommendations for Tree Protection during Development

Due to the high risk to established trees we would recommend the installation of protective fencing prior to commencement of **any** works on site in accordance with BS 5837:2012 "Trees in relation to Construction". Trees should be protected using scaffold frame supporting weld mesh panel fencing sited on the edge of the Root Protection Area as defined in BS5837:2012. These fenced areas should not be used for the storage of any plant machinery or materials and personnel should be excluded at all times; these fences should remain in situ until after final landscaping has been carried out, removed by hand with great care to prevent compaction or root damage to established trees. The services of a suitably qualified arborist should be sought **prior** to the commencement of each stage.

Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

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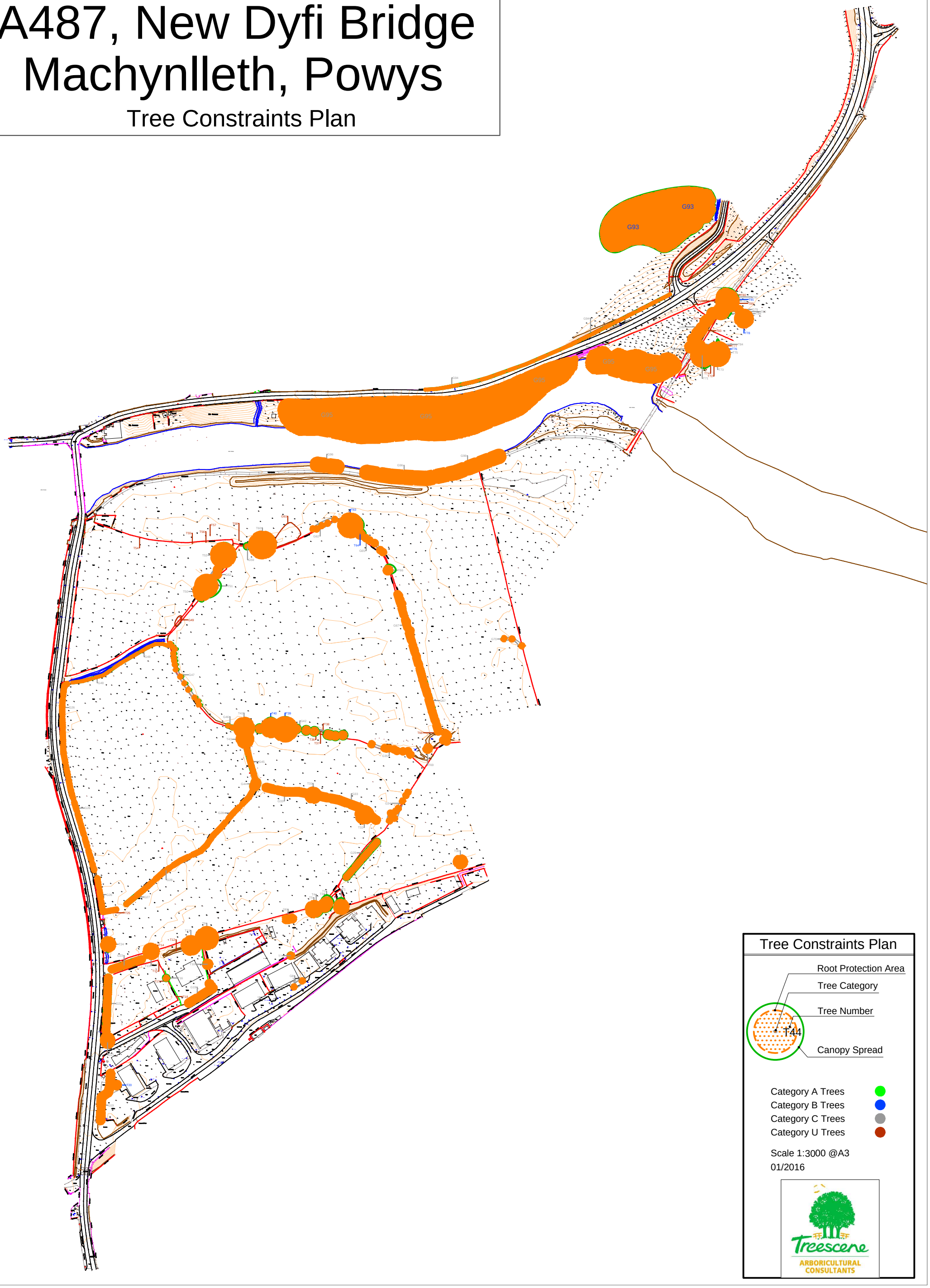
Tree Constraints Plan



Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1:3000 @A3

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Tree Constraints Plan

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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G93

G93

Grass

Tarmac

Post/Wire H=1.3m

Post/Rail H=1.0m

Hedge H=3m

Rock Face

Trench drainage

Tarmac cycle path

Dense vegetation - bushes

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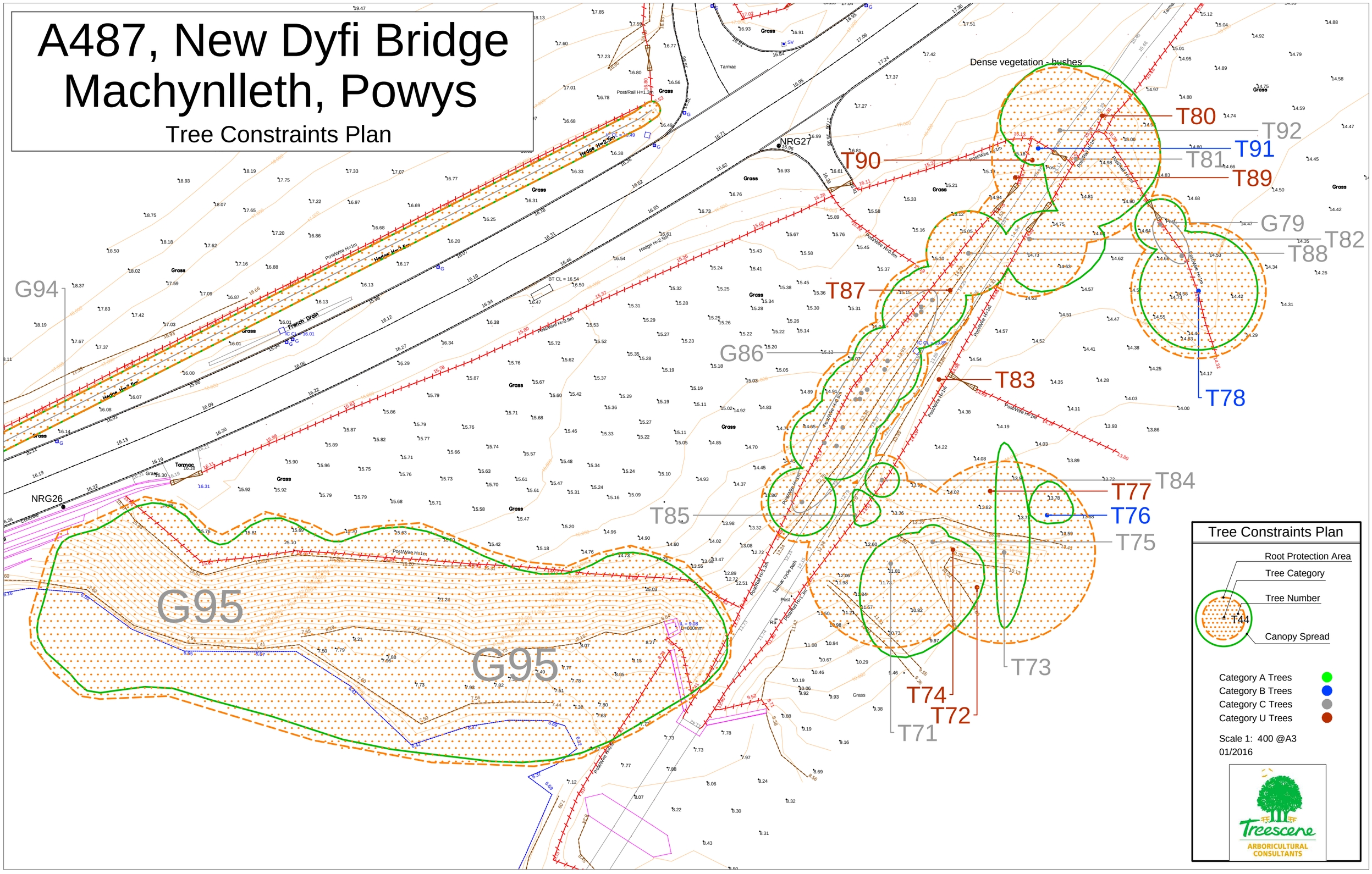
Machynlleth, Powys

Tree Constraints Plan



Tree Constraints Plan

Root Protection Area
Tree Category
Tree Number
T44
Canopy Spread

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees

Scale 1: 400 @A3
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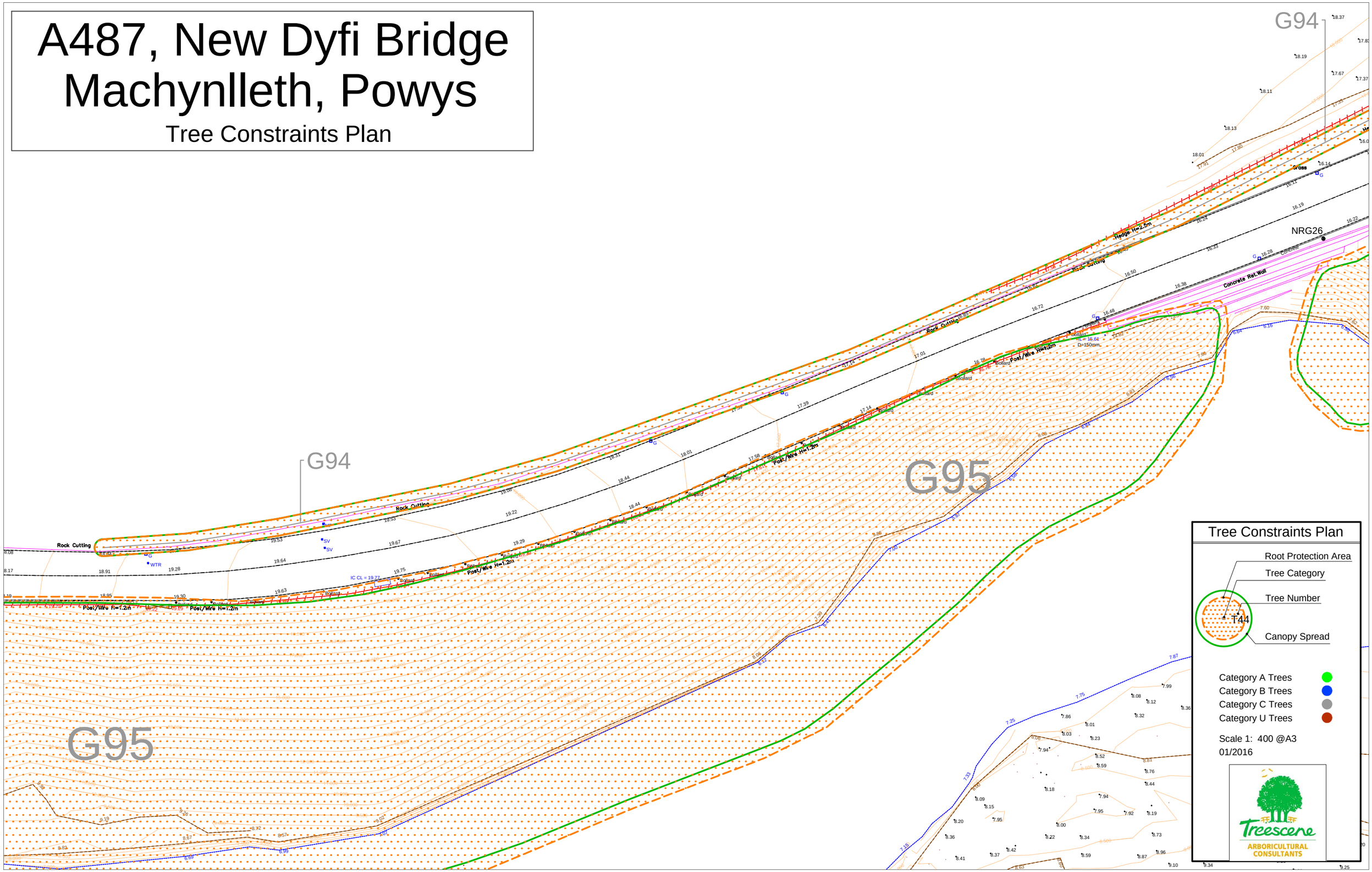
Tree Constraints Plan



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Tree Constraints Plan

Tree Count = 1000
Av Height = 8m
Av Thickness = 0.4m

G94

G95

G95

G96

G96

Rock Cutting

Rock Cutting

Post/Wire H=1.2m

Tarmac Cycle Path

Tarmac Cycle Path

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees

Scale 1: 400 @A3
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G96

G96

G96

T63

T64

G65

Tarmac Cycle Path

Tarmac Cycle Path

Post/Wire H=1.2m

Post/Wire H=1.2

Post/Wire H=1.2

Post/Wire H=1.2

Post/Wire H=1.2

Post

Grass

Grass

Grass

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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Tree Constraints Plan

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Tree Constraints Plan

T66

G67

G70

Grass

Post/Wire H=1.2

Hedge H=2m

TP

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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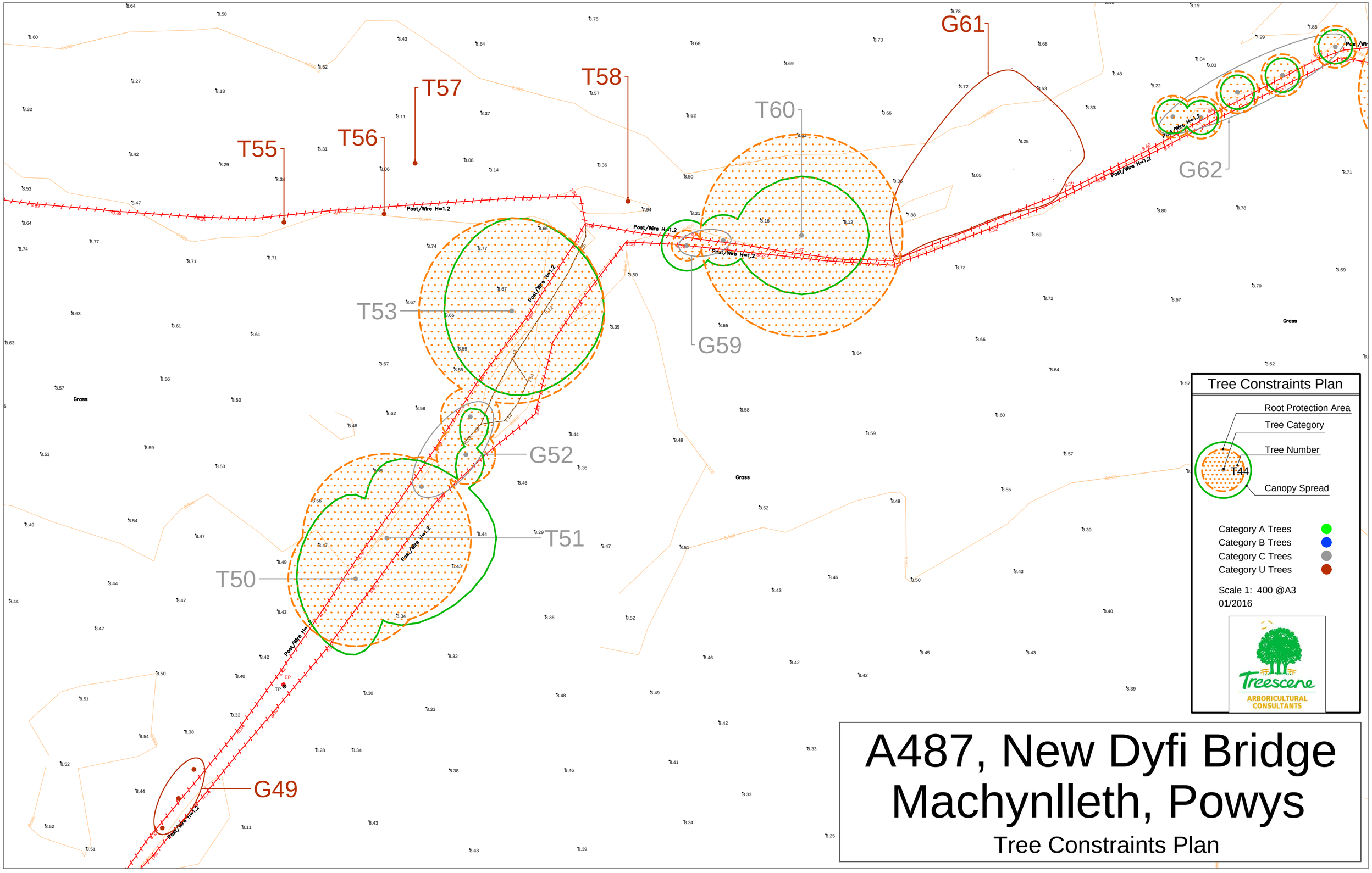

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Tree Constraints Plan

A487, New Dyfi Bridge Machynlleth, Powys

Tree Constraints Plan

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees
Category B Trees
Category C Trees
Category U Trees

Scale 1: 400 @A3
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T54

T5

G48

G48

G26

Hedge H=1.5m
Post/Wire H=1.2
Hedge H=2m
Hedge H=2.2m
Post/Wire H=1.2m
Handrail H=1m
Grass

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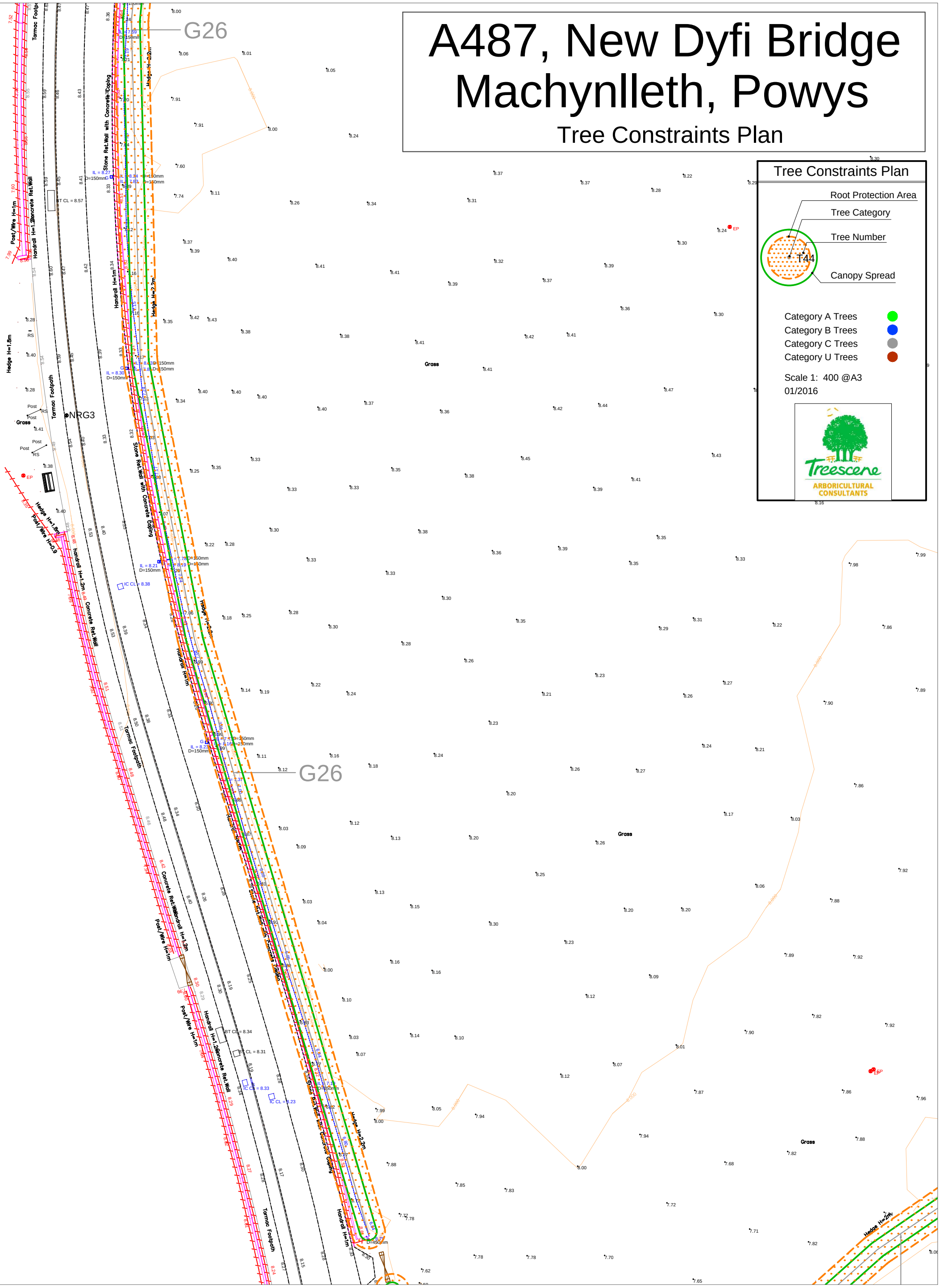
Tree Constraints Plan



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Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees

Scale 1: 400 @A3

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T10 T13 T15 T16 T17 T18 T20 G19 G21 G22 G23

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Tree Constraints Plan

Tree Count = 5
Av Height = 7m
Av Thickness = 0.3m

Hedge H=2m
Hedge H=2.2m
Hedge H=2.2m
Hedge H=2m
Hedge H=2m

Stone Ret.Wall with Concrete Coping
Handrail H=1m
Handrail H=1m
Handrail H=1m
Handrail H=1m
Handrail H=1.2m
Handrail H=1m
Concrete Ret.Wall
Post/Wire H=1.2
Post/Chain Link H=1.6m
Post/Wire H=1.2
Wood Panel H=1.8m
Wood Panel H=2m
Wood Panel H=1.8m

Grass
Undergrowth
Undergrowth
Gravel
Tarmac
Tarmac
Tarmac
Tarmac
Tarmac
Tarmac
Tarmac Footpath
Concrete
Cabin

G26
G27
G28
G23
T24
T25
T9
T10
T11
T12
T13
T14
T15
T16
T17

RG2
IC CL = 8.23
IC CL = 8.24
IC CL = 8.22
IC CL = 8.26
BT CL = 8.24
BT CL = 8.21
IC CL = 9.21
IC CL = 9.39
IC CL = 9.38
IC CL = 9.37
IC CL = 9.29
IC CL = 9.25
IC CL = 9.25
IC CL = 9.22
IC CL = 9.18
TH = 9.44
TH = 9.42
TH = 9.51
Stay
Cab
Cab
TP
MP
LP
RS
Post
Post
IL = 6.75 D=450mm
IL = 6.73 D=450mm
IL = 6.70
IL = 6.73
IL = 6.75 D=450mm

Tree Constraints Plan

Root Protection Area
Tree Category
Tree Number
T44
Canopy Spread

Category A Trees
Category B Trees
Category C Trees
Category U Trees

Scale 1: 400 @A3
01/2016

Treescene
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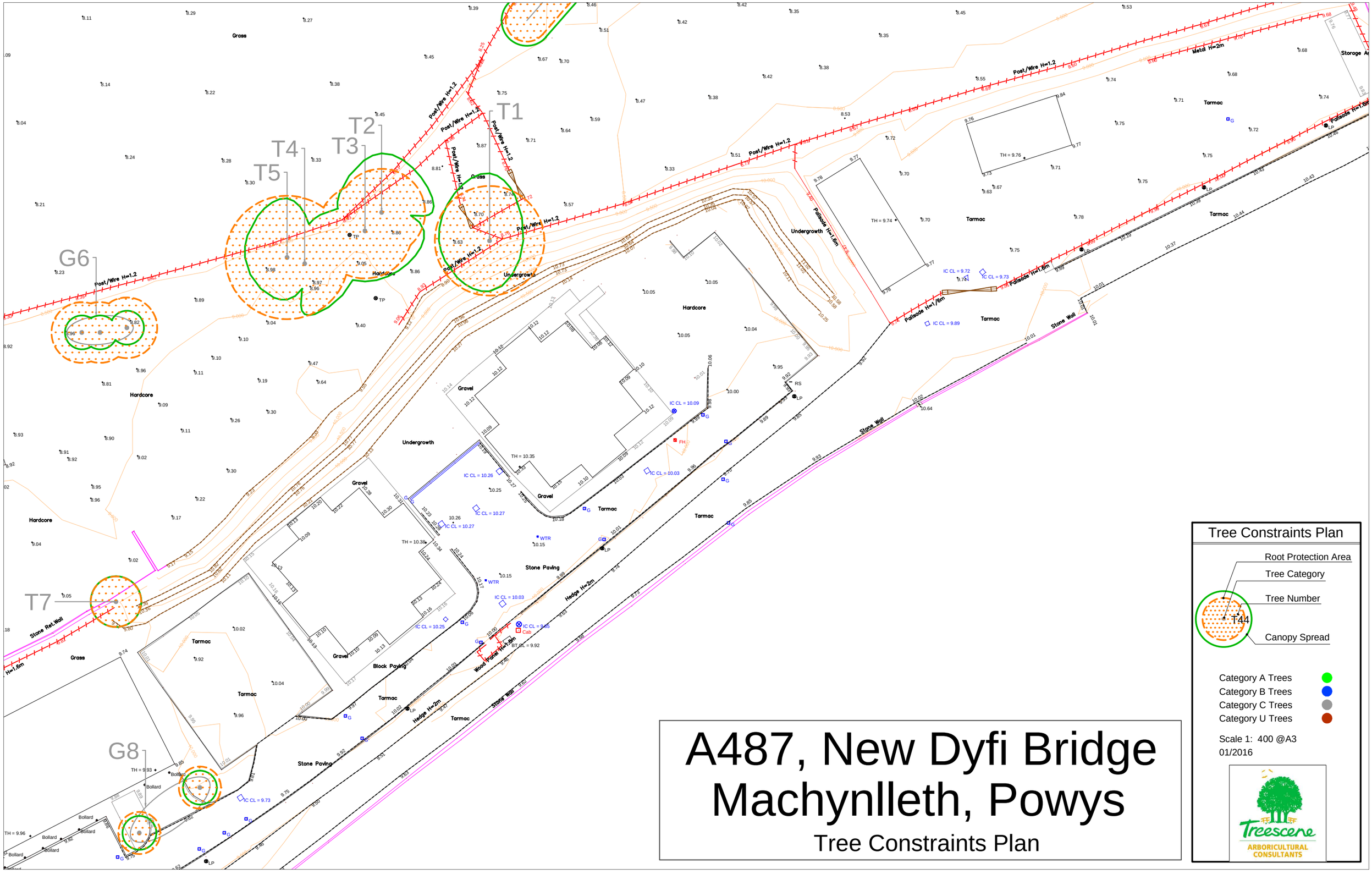

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Tree Constraints Plan

Tree Constraints Plan

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees

Scale 1: 400 @A3
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Tree Constraints Plan

T31
G33
G34
T32
G29
T30
T1
T2
T3
T4

Tree Constraints Plan

Root Protection Area
Tree Category
Tree Number
T44
Canopy Spread

Category A Trees
Category B Trees
Category C Trees
Category U Trees

Scale 1: 400 @A3
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Tree Count = 22
AV Height = 6m
AV Thickness = 0.5m

Post/Wire H=1.2
Post/Rail H=0.5m
Gabion Wall
Metal H=2m
Palisade H=1.5m
Storage Area
Hardcore
Tarmac
Grass
Undergrowth
TH = 9.76

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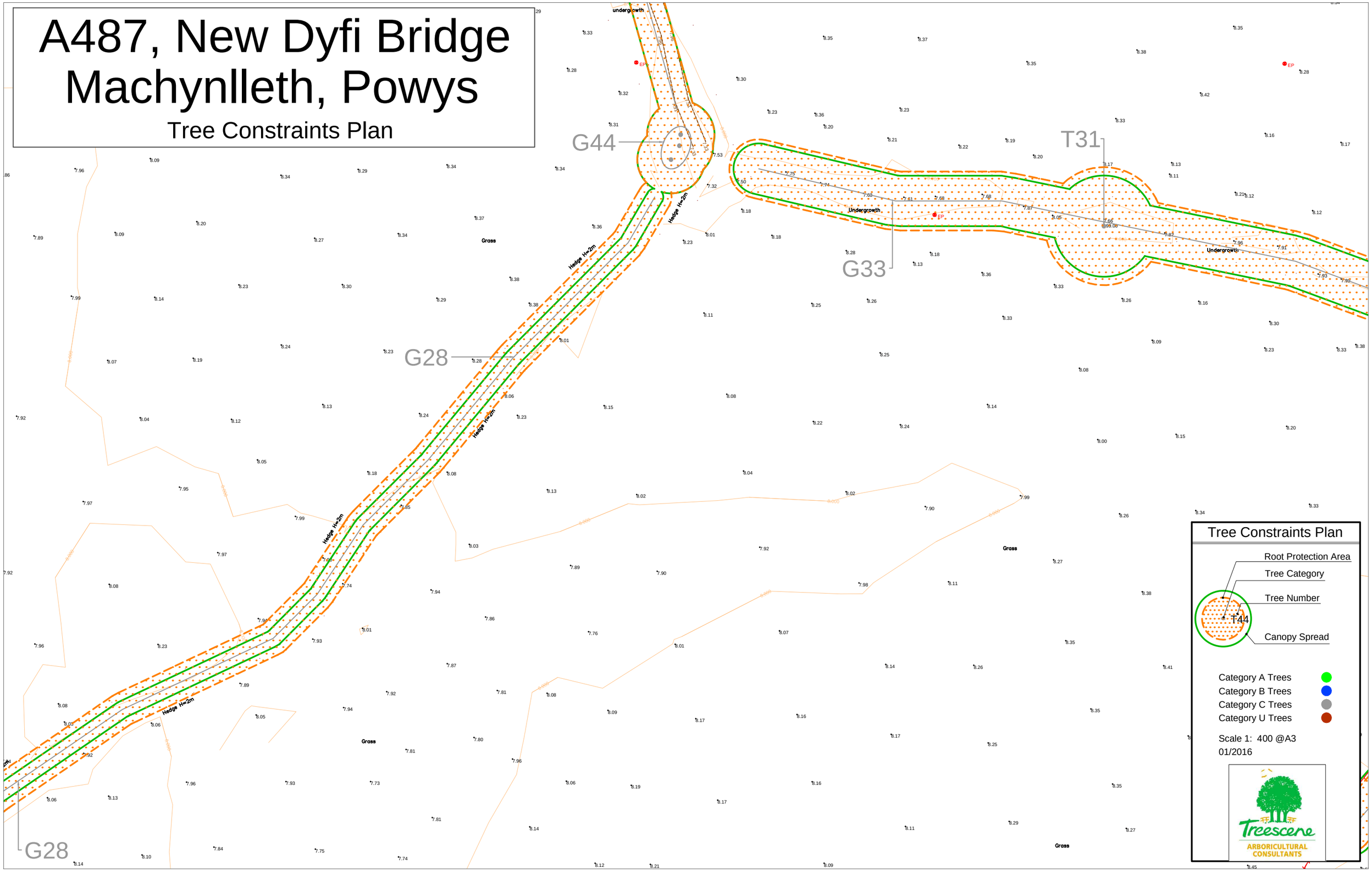
Tree Constraints Plan



Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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Tree Constraints Plan

G47
G46
T41
T40
T39
G42
T38
T43
T36
T37
G45
G44
T31

Post/Wire H=1.2

Gross

undergrowth

TP

EP

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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Treescene
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Tree Constraints Plan

Tree Constraints Plan

Root Protection Area

Tree Category

Tree Number

T44

Canopy Spread

Category A Trees

Category B Trees

Category C Trees

Category U Trees

Scale 1: 400 @A3

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Treescene ARBORICULTURAL CONSULTANTS

T39

G42

T38

T36

T37

G35

T68

G67

T69

Post/Wire H=1.2

Hedge H=2m

Grass

Undergrowth

Pool

IL= 7.82 D=225mm

IL= 7.59 D=225mm