Appendix L Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS)

TREE SURVEY

CONSTRAINTS ANALYSIS

ARBORICULTURAL IMPACT ASSESSMENT

River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Reference: EV-3419-C CA AIA

Site Visit Date: 14 & 15 July 2020

Report Date: 20 July 2020

8 Duke Street Truro Cornwall TR1 2QE
01872 276 099

3rd Floor 11-15 Dix's Field Exeter Devon EX1 1QA
01392 927 402

office@evolvetrees.co.uk

TABLE OF CONTENTS

1 INSTRUCTION 3
2 INTRODUCTION 3
3 METHODOLOGY 3
4 SUPPORTING DOCUMENTATION 4
5 STATUTORY PROTECTION & OTHER CONTROLS 4
6 THE SITE & THE TREES 5
7 CONSTRAINTS ANALYSIS & DESIGN CONSIDERATIONS 6
8 THE PROPOSAL 7
9 POTENTIAL IMPACT OF DEVELOPMENT ON TREES 8
10 IMPACT OF PROPOSAL ON TREES 8
11 ENHANCEMENT & MITIGATION 10
12 CONCLUSIONS 10
APPENDIX A Tree Schedule Explanatory Notes 12
APPENDIX B Tree Schedule 13
APPENDIX C Legal Constraints 31
APPENDIX D Tree Protection Site Notice 33
APPENDIX E Site Survey Area Sheets 1-5 from Jacobs Uk Ltd B236800_Figure 1_Tree Survey Area_v2 34

1 INSTRUCTION

1.1 Jacobs UK Ltd (on behalf of the Environment Agency) instructed Evolve Tree Consultancy to provide a:

1. Tree Survey.
2. Arboricultural Impact Assessment (AIA) including and Tree Constraints included on the TCP-AIA Plan. The AIA includes the trees identified for removal and tree protection measures.

2 INTRODUCTION

2.1 We have been instructed to survey the areas shown in the annotated aerial photographs provided by Jacobs UK Ltd.

2.2 The site comprises the trees within the areas where fill material has been identified as available or where bank reprofiling is proposed within drawing numbers: ENVRESW001353-CH2-ZZ-4LS-DR-C-2011 (P01) and ENVRESW001353-CH2-ZZ-4LS-DR-C-2012 (P01).

2.3 River Sowy and King Sedgemoor Drain (KSD) between the Parchey Bridge and Monk's Leaze Clyce.

2.4 This report analyses the proposals for the increase the levels of the bank around the trees and the effect (the implications) on the continued health, stability and condition of the trees We use the constraints data to evaluate the direct and indirect effects of the proposals and, where necessary, recommends mitigation.

2.5 The plan and schedule will indicate the trees identified for removal and the detailed comments are at Section 9. The measures required for tree protection are given in Section I.

3 METHODOLOGY

3.1 We have undertaken both survey and report to accord with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837). It is not a risk assessment, nor does it assess the risks related to subsidence, heave or other forms of disturbance associated with tree root growth or removal.

3.2 The trees were not on the topographic survey supplied and we have plotted them on as accurately as can be achieved using the ground features and aerial photography. Groups are indicative and do not show the exact location of every stem in each group of those surveyed

3.3 The Root Protection Areas (RPAs) of each group are developed from the largest stem within each group.

3.4 Tree Schedule Explanatory Notes & Methodology are listed in Appendix A.

3.5 The trees were inspected using the Visual Tree Assessment method as described by Mattheck and Breloer (The body language of trees, DoE booklet Research for Amenity Trees No. 4, 1994).

3.6 All trees have been visually surveyed from ground level without climbing, boring or core sampling undertaken. Binoculars were used to assess areas of the crown as appropriate.

4 SUPPORTING DOCUMENTATION

4.1 Relevant documents provided to us include:

- SOWY KSD OS Map showing field.
- Untitled, undated drawing ENVRESW001353-CH2-XX-400-DR-C-0001 showing services.
- King's Sedgemoor Drain General Arrangement Jacobs No. B2368000 S3 P01 dated 27/05/2020 ENVRESW001353-CH2-ZZ-4KS-DR-C-2011
- Lower Sowy General Arrangement Jacobs No. B2368000 S3 P01 dated ENVRESW001353-CH2-ZZ-4LS-DR-C-2012

4.2 This report should be read alongside Evolve drawing:

- EV-3614-C-TCP-AIA.

5 STATUTORY PROTECTION & OTHER CONTROLS

5.1 I have used information supplied by Sedgemoor District Council Interactive map. If any tree is identified for removal, confirmation should be sought from the local planning authority (LPA) in writing about the protected status.

5.2 **Tree Preservation Orders**: We have used the Interactive Map on the web site of Sedgemoor District Council and South Somerset District Council to check the protected status of the trees. None of the trees surveyed are protected by a Tree p[reservation Order (TPO).

5.3 **Conservation Area**: The site is not within a Conservation Area.

5.4 **Planning Conditions/Covenants**: I did not investigate whether any planning conditions or legal covenants relevant to the trees are in place.

5.5 **Felling Licences:** The site is likely to be subject to the provisions of the Forestry Act. It is an offence to fell more than 5 cubic metres of timber in any one quarter, and only 2 cubic metres if it can be sold.

6 THE SITE & THE TREES

6.1 **The Site:** The site is on the Somerset Levels and comprises the route of the River Sowy (in part) and the KSD between Parchey Bridge on Ward Lane to Monk's Leaze Clyce.

6.2 The site is relatively level along the whole length and most of it is grazed.

6.3 We have surveyed also some access roads to the water courses and these are shown on the plans at Appendix I.

6.4 **The Trees:** The trees surveyed were all on within 10 metres (approximately) of the banks of the KSD or Sowy. They were primarily in discrete clumps are a mix of predominately four species: ash, common alder, hawthorn and willow. There are four species of willow present throughout, grey, goat, white and crack. There is also a minor presence of elder, blackthorn, hazel, elm, hybrid black poplar and field maple.

6.5 The overall condition of the trees is reasonable given the relatively harsh conditions encountered. None of the trees surveyed have achieved the species potential in terms of dimensions. This is likely due to the limited fertility of the soil and the high-water table.

6.6 **Ash Die-back.** There is evidence of ash die-back in several of the trees surveyed. This disease is likely to advance along over the whole of the site and will result in the death of a significant proportion of these trees. This does not have any immediate bearing on the proposals.

6.7 **Management.** There has been some management of the larger species willows, white and, primarily, crack. This has been in the form of traditional pollarding and this has been continued for much of the site. Few of the other trees have been managed in any way other than flail type clearance for access along tracks and roads.

6.8 There are several groups of mixed ash, alder, willow and hawthorn especially along the northern eastern bank of the drain in the northern part of the site (groups G2 to G58). These groups are discrete, tightly planted trees that are scattered at near regular intervals along the bank. There may be some historical or landscape reason for this type of clump planting, but it is not typical in our experience.

6.9 The mains groups of trees, from where the KSD separates from the River Sowy and runs to the south, are situated at the bridges where groups of mature willows are common (but also some bridges with no tree cover) and along the occasional hedgerow line.

6.10 **Veteran Trees.** There are a few veteran trees on the site. The willow pollards often contain several features that are commonly associated with

veteran trees (hollowing, splits and decay). This is as expected in the way they are managed and a common feature throughout the area surveyed.

6.11 The more important veteran trees are the two ancient orchard areas (G89 and G98) as these are considerably less common. In particular, ancient pears (photograph 2 below) are uncommon and are of particular value in terms of their specialised habitat and associated flora and fauna.

Photograph 1. Ancient pear in G89.

Photograph 2 showing ancient apple in G89.

7 CONSTRAINTS ANALYSIS & DESIGN CONSIDERATIONS

7.1 The key constraints posed by the trees are shown on Evolve drawing 2614-C the TCP-AIA drawing. Both the above and below ground constraints have the potential to influence the design.

7.2 **Tree Quality Assessment**: The cascade chart, presented as part of Appendix B, is a construct of the BS5837 designed to help describe the characteristics and relative value of trees. It provides guidance enabling an estimate of which trees are important and which trees are not.

7.2.1 It does not dictate which trees ought to be retained or removed, merely the weight that should be given to them when balancing competing interests. Certain trees may be of such importance and sensitivity that they justify having a major influence on design. Others may be of little significance that could be removed without adverse impacts.

7.2.2 The key trees are identified in the survey schedule presented as Appendix B.

7.3 **The RPA**: This is an area (representing a volume of soil) considered necessary to maintain the trees viability. The area represented on the TCP is a minimum recommended by BS5837 and is capped at 707m^2.

7.3.1 The shape of the RPA will vary in accordance with site conditions e.g. a road is likely to form a barrier to root growth. Whilst the notional RPA is circular the shape plotted on the TCP may be a polygon to reflect likely barriers to root growth.

7.3.2 Encroachment within the RPA of retained trees will require justification and be supported by a sound rationale from the project arboriculturist.

7.4 **Tree species**: The species will influence a number of factors relevant to design including height (represented by the length of the shade arc), spread (indicated on the TCP), ultimate height and spread (which may be indicated where appropriate), deciduous/evergreen nature, crown density, seasonal nuisance etc.

7.4.1 The proximity of a tree to built houses and gardens can be a key factor affecting people's enjoyment of a property.

7.5 **Age**: Mature and over-mature trees are generally more sensitive to change than young trees. Their inability to adapt to altered soil conditions within or near the RPA means that care is required when designing in these places.

7.6 **Shade Arc**: Given the proposals will not be affected by light access or shade we have not included the shade arcs.

7.6.1 Dense shade can be addressed by the siting of dwellings and a reasonable proportion of the garden outside the shade arcs.

7.6.2 Siting buildings within the shade arc can adversely affect the availability of natural daylight to principal living rooms. The internal arrangement of buildings and fenestration design can make significant improvements to daylight availability.

8 THE PROPOSAL

8.1 The proposal for the site is for an Environment Agency flood alleviation scheme (the River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1). The scheme runs between Parchey Bridge (Ward Lane) on the King's Sedgemoor Drain and Monk's Leaze Clyce on the River Sowy, and consists of raising and reprofiling of the existing informal earth flood banks which are set back slightly from the channel either side of the main Sowy and KSD through this stretch, along with creation of new some riparian habitat features on the channel banks themselves and minor works to outfalls and two culvert crossings.

9 POTENTIAL IMPACT OF DEVELOPMENT ON TREES

9.1 Arboricultural impacts are a predicted change in condition as a result of an activity related to the scheme. The importance of an impact is a result of the relationship between the magnitude of a change (positive or negative) and the quality or sensitivity of the feature being affected.

9.2 Impacts are generally described as either none (no arboricultural effects or inconvenience), low, moderate or high (major arboricultural effects of inconvenience). Time frames are referred to as short (0—10 years), medium (10—20 years), long (20—40 years) and very long (40+ years).

9.3 My assessment focuses on the impacts relevant to planning merits and is guided by the British Standard BS5837 'Trees in relation to design, demolition and construction – recommendations'.

9.4 Typical considerations include:

- Tree loss.
- Build practicability.
- Mitigation planting.
- Future conflicts.
- Removal of structures.
- Construction access.
- Statutory Protection.
- Canopy protection.
- Proximity to structures.
- Effect on amenity value.
- Shading.
- Design conflicts.
- Necessary pruning.
- Infrastructure.
- Use of land near trees.

10 IMPACT OF PROPOSAL ON TREES

10.1 The purpose of the works is to improve the resilience of the landscape for flood alleviation. Consequently, the need for the work is clear and the options for adjusting or amending the proposed work is limited by levels, drainage and other engineering considerations.

10.2 In terms of damage to the trees, the greatest threat is soil compaction. This is the most common cause of damage to the health of the trees as it prevents the roots from functioning and therefore a decline in health and condition. As long as work is kept outside the RPA the tree should survive without any significant ill effects.

10.3 Minor encroachments into the RPAs of the trees can be tolerated especially if to give access for construct ion rather than excavation in these areas. As long as the trees have a larger proportion of the area outside the RPA left undisturbed the greater the opportunity of the trees to continue to function and retain health.

10.4 The areas to the north of the KSD, bordered in red on Evolve 3614-C-TCP-AIA plan, where material will be won, have the potential to have some effect on the ability of the roots to function. However, the level changes are not significant and the species relatively tolerant of disturbance. Also, the tree's age classes support their potential to adapt to change.

10.5 Of the over 100 trees and groups surveyed five groups or parts of groups and one tree (see Table 1 below) have been identified for removal.

10.6 Tree Removal & Retention: Trees to be felled are listed in Table 1. It describes why they are to be removed and the effects of doing so. The impacts of removing the trees are

Tree No.	Tree Species	Action	Reason	Impact
G10	Hawthorn, field maple & willow	Fell	Raising/reprofiling of the existing informal flood banks - level changes	Moderate loss, readily replaced
T28	Willow	Fell	Bank raising	Low
G29	Ash, willow	Fell 1 tree	Outfall improvement works	Low
G39	Willow	Fell 1 tree	Raising/reprofiling of the existing informal flood banks - level changes	Moderate loss
G53	Willow	Fell 4 trees	Raising/reprofiling of the existing informal flood banks - level changes	High
G67	Alder	Fell 2 trees	Outfall improvement works	Moderate loss

Table 1. Tree loss

10.7 Visual Amenity The impact on visual amenity will be low overall. The A category group G53 comprises a group of 12 pollard willows that form a striking feature around the bridge on Sandy Lane will be the most important loss.

11 ENHANCEMENT & MITIGATION

11.1 We have not seen any detailed proposals but several areas appear to be noted for environmental enhancements. This should include some new tree planting, where appropriate, and the enhancement of other ecological features.

11.2 Where appropriate, the new planting will be managed in a traditional manner (e.g. pollards) and the planting of new willows can be readily achieved by planting shoots from the existing trees directly into wherever they are required.

11.3 The species selection is currently very limited. Though this environment is difficult the diversity of species will be enriched with further suitable native species that are likely to establish well and thrive.

12 CONCLUSIONS

12.1 Given the size of the site, the relatively low public viewing of the site and the potential for mitigation the overall impact of the proposals is low in arboricultural terms.

12.2 The overall arboricultural impacts of the proposed development are low. Consequently, the proposal does conflict with either local or national planning policies.

Tim Scott-Ellis BSc Hons (For), Dip Arb (RFS), F Arbor A, MICFor, MRICS
Evolve Tree Consultancy

I am a Fellow of the Arboricultural Association, a Chartered Arboriculturist and a Chartered Surveyor. I hold an honours degree in Forestry and the Royal Forestry Society Professional Diploma in Arboriculture. I have been working as a full-time, professional arboriculturist since 1999.

RICS

Institute of Chartered Foresters
Registered Consultant

Arboricultural ASSOCIATION
Fellow Member

The authority of this report ceases when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s). The statements made in this report do not consider the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Evolve Tree Consultancy cannot accept any liability about these factors, nowhere prescribed work is not carried out in a correct and professional manner in accordance with current good practice.

The recommendations within this report remain valid for the period stated for re-inspection or twelve months from the date of survey.

The limit of Evolve Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Evolve Tree Consultancy cannot be held liable for any third-party claim that arises following or out of this report. This report remains the intellectual property of Evolve Tree Consultancy.

APPENDIX A
Tree Schedule Explanatory Notes

Sequential Tree, Group or Woodland Reference Number.
Name: Scientific name (Common name in brackets).
Height: Recorded in metres by inclinometer in each discrete area and estimated from the measured tree. **(lwr crn ht)** Lower crown height, the height of the canopy above the ground.
Trunk diameter: Tree stem diameter in millimetres at 1.5 metres above adjacent ground level rounded up to nearest 50 millimetres. For multi-stemmed trees a cumulative diameter is calculated (in accordance with BS 5837:2012 Annex C).
Crown Spread: Measured in metres & taken at four cardinal points (N E S W).
1st Sig branch: Existing height in metres above ground level (agl) of the first significant branch with direction of growth (if available).

Life stage	**Y**	**Young**	Recently planted or establishing tree.
	SM	Semi-mature	Age less than one-third life completed. Established tree but one that has not reached its potential ultimate height and has significant growth potential.
	EM	Early-mature	One-third to two-thirds life completed. A tree reaching its ultimate potential height, whose growth rate is slowing down but will still increase in stem diameter and crown spread.
	M	Mature	Two thirds plus life completed. Specimen with limited potential for any significant increase in size but with a reasonable life expectancy.
	LM	Late-mature (Over-mature in the BS)	Two-thirds plus life completed and declining. A tree that has passed its optimum growth rate and may require specialist management. These trees may offer significant benefits in terms of nature conservation
	V	Veteran	A tree that shows 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.

Category: A grade given in accordance with BS 5837:2012 - Tree Categories (see copy of Table 1 from BS 5837:2012 below).
Comments: General observations e.g. collapsing, the presence of any decay and physical defect and including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.
Life Expectancy: Estimated remaining contribution in years in terms of amenity (<10, 10+, 20+, 40+).

Physiological condition	**G**	**Good**	Tree that appears to be in good condition and healthy without significant defects.
	F	**Fair**	Tree that appears to be structurally sound but due to minor defects is downgraded from good.
	P	**Poor**	Tree which shows signs of poor health, in decline and/or with significant defects.
	D	**Dead**	Tree which is moribund or has died.

Recommendations: Preliminary management recommendations based on the site as surveyed and for any likely pruning likely to be required should any development proceed.
RPA-R (m) - Root Protection Area (RPA) Radius - The radius of an indicative circle of the RPA.
RPA (m^2) - RPA Area in metres squared.

APPENDIX B
Tree Schedule

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
G1	Fraxinus excelsior (Ash), Crataegus monogyna (Hawthorn), Alnus glutinosa (Common Alder), Salix alba (White Willow)	18(2)	350	5	5	5	5	2	EM	Group of trees next to road by gate. Dominated by ash & alder, hawthorn understorey.	40+	Good		B2	4.2	55
T2	Fraxinus excelsior (Ash)	9(2)	250	3	4	3	3	1	EM	No significant visible defects. On steep bank.	40+	Good		C1	3.0	28
T3	Fraxinus excelsior (Ash)	18(2)	620	4	4	4	4	2	EM	Stem divides above 1.5m. Hawthorn ring around dripline of tree. Ground under canopy poached by livestock.	40+	Fair		B2	7.4	174
T3.1	Fraxinus excelsior (Ash), Alnus glutinosa (Common Alder)	18(2)	620	4	4	4	4	2	EM	Stem divides above 1.5m. Hawthorn ring around dripline of tree. Ground under canopy poached by livestock.	40+	Fair		B2	7.4	174
T4	Crataegus monogyna (Hawthorn)	5(0)	150	1.5	1.5	1.5	1.5	0	SM	No significant visible defects. Growing from side of bank.	40+	Fair		C1	1.8	10

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G5	Fraxinus excelsior (Ash), Crataegus monogyna (Hawthorn)	18(2)	350	4	4	4	4	2	EM	Stem divides above 1.5m. Group of 10 trees growing in close proximity. Scattered hawthorns on edge of group. 1 dead hawthorn, one failed willow, both hung up in ash. The willow remains biologically viable.	40+	Fair		B2	4.2	55
G6	Fraxinus excelsior (Ash), Crataegus monogyna (Hawthorn), Alnus glutinosa (Common Alder)	18(2)	350	4	4	4	4	2	EM	Stem divides above 1.5m. Group of dominant ash trees growing in close proximity. Scattered hawthorns on edge of group. Some alder developing.	40+	Fair		B2	4.2	55
G7	Crataegus monogyna (Hawthorn), Alnus glutinosa (Common Alder), Salix alba (White Willow)	18(2)	320	4	4	4	4	2	EM	Forms joint canopy. Alder & willow. Leaning stems.	40+	Fair		B2	3.8	46
G8	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	14(2)	863	4	6	4	5	0.5	M	No significant visible defects. Lapsed coppice.	20+	Good		B1	10.4	337
G9	Crataegus monogyna (Hawthorn), Acer campestre (Field Maple)	5(2)	250	3	3	3	3	2	EM	2 x hawthorn trees with considerable bramble protection.	40+	Fair		C1	3.0	28

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G10	Crataegus monogyna (Hawthorn), Acer campestre (Field Maple), Salix alba (White Willow)	18(1.5)	680	3	6	6	4	2	M	Mature willow with one stem failed at included union at base. Remaining stem leaning to east. Regeneration of willow and some hawthorn.	40+	Fair	Fell	B2	8.2	209
G11	Alnus glutinosa (Common Alder),Crataegus monogyna (Hawthorn)	9(2.5)	300	3	3	3	3	3	SM	14 alders and scattered hawthorns.	20+	Fair		B2	3.6	41
G12	Alnus glutinosa (Common Alder), Crataegus monogyna (Hawthorn), Acer campestre (Field Maple)	6(10)	300	3	3	3	3	1	EM		10+	Poor		C2	3.6	41
T13	Salix cinerea (Grey willow)	4(0.5)	300	4	3	2	3	0.5	M	Typically split at base, no layering or suckering as yet.	20+	Good		C1	3.6	41
T14	Salix cinerea (Grey willow)	4(0.5)	300	4	3	0	2	0.5	M	Fallen tree, very limited new growth.	20+	Fair		C1	3.6	41
G15	Crataegus monogyna (Hawthorn),Salix alba (White Willow)	6(2)	200	2	2	2	2	1.5	SM	No significant visible defects.	20+	Fair		C2	2.4	18
G16	Crataegus monogyna (Hawthorn), Salix alba (White Willow)	6(2)	200	2	2	2	2	1.5	SM	3 failed willows with new growth from wounds.	20+	Fair		C2	2.4	18
Tree No.	Name	Ht (m)	Stem dia.	Branch Spread (m)				1st sig branch	Life Stage	Comments	Life Exp	Cond	Advice	Cat	RPA R m	RPA A m²

	(Common & Scientific)		(mm)	N	E	S	W	(m)			(yrs)					
G17	Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash), Salix alba (White Willow)	8(1.5)	250	3	3	3	3	1	SM	The ash tree is of good form and condition. The mature hawthorn and willow have decay in their main stems, the willow has failed as a result.	40+	Fair		C2	3.0	28
G18	Crataegus monogyna (Hawthorn), Salix alba (White Willow)	5(2)	200	2	2	2	2	1.5	EM	3 failed willows with new growth from wounds.	20+	Fair		C2	2.4	18
G19	Fraxinus excelsior (Ash), Alnus glutinosa (Common Alder)	6(2)	270	3	3	3	3	2	SM	No significant visible defects.	20+	Fair		C2	3.2	33
G20	Fraxinus excelsior (Ash), Alnus glutinosa (Common Alder)	6(2)	410	5	4	3	4	2	M	No significant visible defects.1 alder and 2 hawthorns.	20+	Fair		C2	4.9	76
G21	Alnus glutinosa (Common Alder), Crataegus monogyna (Hawthorn)	6(2)	200	5	4	3	4	2	SM	No significant visible defects.7 alder and 4 hawthorns.	20+	Fair		C2	2.4	18
G22	Alnus glutinosa (Common Alder), Crataegus monogyna (Hawthorn)	6(2)	200	5	4	3	4	2	SM	No significant visible defects.	20+	Fair		C2	2.4	18
G23	Salix cinerea (Grey willow)	4(0)	350	3	3	3	3	0.5	M	Lapsed coppice. Forms joint canopy.	40+	Fair		C2	4.2	55

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G24	Alnus glutinosa (Common Alder), Crataegus monogyna (Hawthorn)	6(2)	200	5	4	3	4	2	SM	No significant visible defects.3 alder and 1 hawthorn.	20+	Fair		C2	2.4	18
T25	Salix alba (White Willow)	3(2)	200	1	2	2	2	2	SM	New stem from failed tree.	20+	Fair		C1	2.4	18
G26	Alnus glutinosa (Common Alder),Crataegus monogyna (Hawthorn),Salix alba (White Willow)	12(2)	250	4	4	4	4	2	SM	No significant visible defects.18 alder. Close grown.	20+	Fair		C2	3.0	28
G27	Alnus glutinosa (Common Alder)	12(2)	260	4	6	4	4	2	SM	No significant visible defects. Restricted growth due to exposed situation.6 alder. Close grown.	20+	Fair		C2	3.1	31
T28	Salix alba (White Willow)	8(1)	406	3	7	4	8	1	EM	Maturing willow collapsing in part. New growth from prostrate stems.	10+	Fair	Fell	C1	4.9	75
G29	Fraxinus excelsior (Ash), Salix alba (White Willow)	12(2)	550	4	4	4	4	2	EM	No significant visible defects. Collapsing willow under canopy to south.	20+	Good	Fell	B2	6.6	137
T30	Salix alba (White Willow)	3(0.5)	200	2	2	2	2	0.5	EM	New growth from failed stem.	40+	Fair		C1	2.4	18
G31	Alnus glutinosa (Common Alder)	12(2)	300	4	4	4	4	2	EM	No significant visible defects.	40+	Good		B2	3.6	41
G32	Alnus glutinosa (Common Alder), Fraxinus excelsior (Ash)	14(2)	350	4	4	4	4	2	EM	No significant visible defects. Some die-back in lower crown of ash.	40+	Good		B2	4.2	55
Tree No.	Name	Ht (m)	Stem dia.	Branch Spread (m)				1st sig branch	Life Stage	Comments	Life Exp	Cond	Advice	Cat	RPA R m	RPA A m²

	(Common & Scientific)		(mm)	N	E	S	W	(m)			(yrs)					
G33	Alnus glutinosa (Common Alder), Fraxinus excelsior (Ash)	14(2)	350	4	4	4	4	2	EM	Stem divides below 1.5m. Some die-back in lower crown of ash, symptoms correspond with typical ash die-back.	40+	Good		B2	4.2	55
G34	Alnus glutinosa (Common Alder), Fraxinus excelsior (Ash)	14(2)	350	4	4	4	4	2	EM	Dominant 2 ash trees are showing typical symptoms correspond with typical ash die-back. Remaining alders (approx.10 trees) in good condition despite harsh growing conditions.	40+	Good		B2	4.2	55
G35	Alnus glutinosa (Common Alder)	12(2)	300	4	4	4	4	2	EM	No significant visible defects.	40+	Good		B2	3.6	41
G36	Alnus glutinosa (Common Alder), Fraxinus excelsior (Ash)	14(2)	350	4	4	4	4	2	EM	Dominant 2 ash trees are showing typical symptoms correspond with typical ash die-back. Remaining alders (approx. trees) in good condition despite harsh growing conditions.	40+	Good		B2	4.2	55
G37	Alnus glutinosa (Common Alder), Fraxinus excelsior (Ash)	14(2)	250	4	4	4	4	2	EM	Alders (approx. 12 trees) in good condition despite harsh growing conditions.	40+	Good		B2	3.0	28
G38	Crataegus monogyna (Hawthorn)	14(2)	250	3	4	3	4	2	EM	Alders (approx. 8 trees) in good condition despite harsh growing environment.	40+	Good		B2	3.0	28

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G39	Salix alba (White Willow)	12(1.5)	600	6	6	6	6	2	M	One the prostrate, good regenerative growth. No ash die-back indicators in crowns of ash trees.	40+	Good	Fell two most southerly trees in group. Retain remainder.	B2	7.2	163
G40	Salix alba (White Willow)	12(1.5)	450	3	4	6	4	2	M	Unable to inspect stem due to undergrowth.	40+	Good		B2	5.4	92
G41	Salix alba (White Willow)	2(0)	250	1	1	1	1	0	SM	Coppice.	40+	Good		C1	3.0	28
G42	Salix cinerea (Grey willow)	3(0)	250	3	3	3	3	0	SM	Coppice.	40+	Good		C1	3.0	28
G43	Salix alba (White Willow),Salix cinerea (Grey willow)	4(0)	300	2	2	2	2	0	SM	Coppice.	40+	Good		C1	3.6	41
T44	Salix alba (White Willow)	12(0.5)	620	8	8	8	8	0	LM	Dieback in crown. Low bud/leaf density. Broken branches in crown. Major deadwood in crown.	20+	Fair		B3	7.4	174
T45	Salix cinerea (Grey willow)	2(0)	250	3	2	0	2	0	SM	Leaning North. Bark on exposed stems has been stripped.	20+	Fair		C1	3.0	28
T46	Salix cinerea (Grey willow)	6(0.5)	250	3	3	3	3	0.5	SM	Low bud/leaf density. Bark on exposed stems has been stripped.	20+	Fair		C1	3.0	28
T47	Salix cinerea (Grey willow), Salix caprea (Goat Willow)	6(0.5)	250	3	3	3	3	0.5	SM	Low bud/leaf density. Bark on exposed stems has been stripped.	20+	Fair		C1	3.0	28

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G48	Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash), Ilex aquifolium (Holly), Salix alba (White Willow)	18(4)	750	6	6	6	6	3	M		40+	Good		A2	9.0	255
G49	Salix alba (White Willow)	12(4)	800	5	5	5	5	3	M	Pollard.	40+	Good		B2	9.6	290
G50	Salix alba (White Willow)	12(4)	1000	6	6	6	6	3	M	Unable to inspect stem due to Ivy.	40+	Fair		B1	12.0	452
G50.1	Salix alba (White Willow)	12(4)	600	6	6	6	6	3	M		40+	Fair		B2	6.5	252
G51	Crataegus monogyna (Hawthorn)	5(0)	250	3	3	3	3	0	EM	Unable to inspect stem due to undergrowth.	40+	Fair		C2	3.0	28
G52	Crataegus monogyna (Hawthorn)	5(0)	250	3	3	3	3	0	EM	Unable to inspect stem due to undergrowth.	40+	Fair		C2	3.0	28
G53	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows (12) around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair	Fell 4 trees directly under footprint of bank raising.	A2	7.8	191

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
G54	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Part of linear group. Unable to inspect stem due to Ivy. Low branches over road/footpath. Trees on roadside.	20+	Fair		A2	7.8	191
G55	Salix alba (White Willow)	5(2)	1250	6	6	6	6	2	M	Lapsed pollard. Unable to inspect stem due to undergrowth. Growth from a fallen stem. Poached soil around stem.	20+	Fair		B1	15.0	707
G56	Salix cinerea (Grey willow)	5(1)	200	3	4	3	2	0	M	Growth from a fallen stem. Poached soil around stem.	20+	Fair		C2	2.4	18
G57	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
G57.1	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
G58	Salix cinerea (Grey willow)	5(1)	200	3	4	3	2	0	M	Growth from a fallen stem. Poached soil around stem.	20+	Fair		C2	2.4	18
G59	Salix cinerea (Grey willow)	5(1)	200	3	4	3	2	0	M	Growth from a fallen stem. Poached soil around stem.	20+	Fair		C2	2.4	18

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G60	Salix cinerea (Grey willow), Salix caprea (Goat Willow), Salix viminalis (Osier), Salix fragilis (Crack Willow), Salix alba (White Willow)	4(0)	300	4	3	2	3	0.5	M	Coppice. Growing on edge of back, in water.	20+	Fair		B2	3.6	41
G61	Salix cinerea (Grey willow), Salix caprea (Goat Willow), Salix viminalis (Osier), Salix fragilis (Crack Willow), Salix alba (White Willow)	6(0)	300	4	4	4	4	0.5	M	Coppice. Growing on edge of back, in water.	20+	Fair		B2	3.6	41
T62	Salix alba (White Willow)	12(0)	339	3	5	3	4	0	M	Lapsed coppice.	40+	Fair		B1	4.1	52
G63	Crataegus monogyna (Hawthorn)	4(1)	200	2	1.5	1	1	1	EM	Restricted growth due to exposed situation.	20+	Fair		C2	2.4	18
G64	Crataegus monogyna (Hawthorn)	4(1)	200	2	1.5	1	1	1	EM	Dieback in crown. Low bud/leaf density. Broken branches in crown.	10+	Poor		C2	2.4	18
G65	Alnus glutinosa (Common Alder)	11(2)	200	3	3	3	1	2	EM	No significant visible defects.	40+	Good		B2	2.4	18
G66	Crataegus monogyna (Hawthorn)	4(1)	200	2	1.5	1	1	1	EM	Dieback in crown. Low bud/leaf density. Broken branches in crown.	10+	Poor		C2	2.4	18
G67	Alnus glutinosa (Common Alder)	11(2)	200	3	3	3	1	2	EM	No significant visible defects. Approx 15 trees.	40+	Good	Remove most southerly tree in group.	B2	2.4	18

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m²
				N	E	S	W									
G68	Alnus glutinosa (Common Alder)	11(2)	200	3	3	3	1	2	EM	One dead tree on west side of group.	40+	Fair		B2	2.4	18
G69	Alnus glutinosa (Common Alder)	11(2)	200	3	3	3	1	2	EM	No significant visible defects. Approx 15 trees.	40+	Good		B2	2.4	18
G70	Salix alba (White Willow)	18(4)	780	8	6	3	6	4	M	Stem divides below 1.5m. Forms joint canopy. Northern tree of group with more sparse crown.	20+	Fair		B2	9.4	275
G70.1	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
G70.2	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
G70.3	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
G70.4	Salix alba (White Willow), Crataegus monogyna (Hawthorn)	15(2)	650	3	3	3	3	2	EM	Group of willows around bridges and access, of pollard trees with large, secondary crowns. Significant feature in landscape.	20+	Fair		A2	7.8	191
Tree No.	Name	Ht (m)	Stem dia.	Branch Spread (m)				1st sig branch	Life Stage	Comments	Life Exp	Cond	Advice	Cat	RPA R m	RPA A m²

	(Common & Scientific)		(mm)	N	E	S	W	(m)			(yrs)					
G71	Acer campestre (Field Maple), Acer pseudoplatanus (Sycamore)	9(3)	354	4	4	4	4	1	EM	No significant visible defects. Part of linear group. Ivy on tree.	40+	Good	Maintain highways clearances.	B2	4.3	57
G72	Acer campestre (Field Maple), Crataegus monogyna (Hawthorn), Prunus spinosa (Blackthorn), Sambucus nigra (Elder), Corylus avellana (Hazel), Malus sylvestris (Crab Apple), White Willow	6(2)	250	3	3	3	3	1	EM	Mixed species, native managed hedgerow.	40+	Fair		B2	3.0	28
G73	Acer campestre (Field Maple), Salix alba (White Willow), Crataegus monogyna (Hawthorn), Sambucus nigra (Elder)	12(2)	600	4	4	4	4	2	M	2 mature willows, lapsed pollards. Remaining vegetation along hedgerow.	40+	Fair		B2	7.2	163
G74	Salix alba (White Willow), Sambucus nigra (Elder), Salix fragilis (Crack Willow), Crataegus monogyna (Hawthorn), Prunus spinosa (Blackthorn)	8(2)	700	3	3	3	3	2	M	Lapsed pollard.	20+	Fair	Maintain current management .	B2	8.4	222
Tree No.	**Name**	**Ht (m)**	**Stem dia.**	**Branch Spread (m)**				**1st sig branch**	**Life Stage**	**Comments**	**Life Exp**	**Cond**	**Advice**	**Cat**	**RPA R m**	**RPA A m^2**

	(Common & Scientific)		(mm)	N	E	S	W	(m)			(yrs)					
G75	Crataegus monogyna (Hawthorn)	4(0.5)	308	1.5	1.5	1.5	1.5	0.5	EM	Managed hedge group.	40+	Fair		B2	3.7	43
T75.1	Salix fragilis (Crack Willow)	16(3)	461	4	6	4	7	1	EM	Leaning West.	40+	Fair		B1	5.5	96
T76	Populus x canadensis (Hybrid Black Poplar)	18(4)	1100	6	6	5	5	5	LM	Leaning North. Dieback in crown. Low bud/leaf density. Crown lifted to current dimensions. Mistletoe in crown. Previous primary branch failure.	40+	Fair		B1	13.2	547
G77	Populus x canadensis (Hybrid Black Poplar)	18(4)	600	6	6	5	5	5	EM	Leaning North. Dieback in crown. Crown lifted to current dimensions. Mistletoe in crown. Previous primary branch failure.	40+	Fair		B1	7.2	163
G78	Populus x canadensis (Hybrid Black Poplar)	18(4)	1100	6	6	5	5	5	LM	Leaning North. Unable to inspect stem due to Ivy. Dieback in crown. Low bud/leaf density. Crown lifted to current dimensions.	40+	Fair		B1	13.2	547
G79	Crataegus monogyna (Hawthorn), Ulmus procera (English Elm), Sambucus nigra (Elder)	4(0.5)	308	1.5	1.5	1.5	1.5	0.5	EM	Managed hedge group.	40+	Fair		B2	3.7	43
G80	Salix fragilis (Crack Willow)	13(1)	900	6	3	6	3	1	M	Pollard. Unable to inspect stem due to Ivy.	40+	Fair		B2	10.8	366
Tree No.	**Name (Common & Scientific)**	**Ht (m)**	**Stem dia. (mm)**	**Branch Spread (m)**				**1st sig branch (m)**	**Life Stage**	**Comments**	**Life Exp (yrs)**	**Cond**	**Advice**	**Cat**	**RPA R m**	**RPA A m^2**
				N	**E**	**S**	**W**									

G81	Salix fragilis (Crack Willow)	13(1)	900	6	3	6	3	1	M	Pollard. Unable to inspect stem due to Ivy.5 trees.	40+	Fair		B2	10.8	366
G82	Crataegus monogyna (Hawthorn), Ulmus procera (English Elm), Sambucus nigra (Elder)	4(0.5)	308	1.5	1.5	1.5	1.5	0.5	EM	Will succumb to DED. Managed hedge group. Considerable presence of elm.	40+	Fair		B2	3.7	43
G83	Hawthorn, Hazel, Ash, Crack Willow, Elder	12(2)	750	4	4	4	4	1	M	Managed hedge group with willow overstorey.	40+	Fair		B2	9.0	255
G84	Salix fragilis (Crack Willow), Populus x canadensis (Hybrid Black Poplar)	20(4)	1100	6	6	5	5	5	LM	Ivy on tree. Crown lifted to current dimensions. Mature pollarded willows forming understorey. Mistletoe.	40+	Fair		B1	13.2	547
G85	Salix fragilis (Crack Willow)	20(4)	1100	6	6	5	5	5	LM	Ivy on tree. Crown lifted to current dimensions. Mature pollarded willows forming understorey. Mistletoe.	40+	Fair		B1	13.2	547
G86	Salix fragilis (Crack Willow)	12(4)	600	5	5	5	5	5	LM	Forms joint canopy. Mature pollarded willows forming understorey. Adjacent to car park.	40+	Fair		B3	7.2	163
T87	Salix fragilis (Crack Willow)	7(2)	430	7	6	3	3	2	M	Stem divides below 1.5m.In ditch behind bank.	40+	Fair		B1	5.2	84
G87.1	Salix fragilis (Crack Willow)	11(2)	750	4	4	4	2	2	EM	Forms joint canopy. Group of 2 willows adjacent to gate and at corner of 2 fields.	40+	Good		B2	9.0	255
T87.2	Salix fragilis (Crack Willow)	11(2)	500	4	4	4	2	2	EM	Pollard. Part of linear group. Forms joint canopy.	40+	Good		B2	6	150
Tree No.	**Name (Common & Scientific)**	**Ht (m)**	**Stem dia. (mm)**	**Branch Spread (m)**				**1st sig branch (m)**	**Life Stage**	**Comments**	**Life Exp (yrs)**	**Cond**	**Advice**	**Cat**	**RPA R m**	**RPA A m^2**
				N	**E**	**S**	**W**									

G88	Crataegus monogyna (Hawthorn)	4(0.5)	200	1	1	1	1	0	EM	No significant visible defects. Part of linear group.	40+	Good		C2	2.4	18
G89	Malus (Apple), Pyrus (Pear)	4(0.5)	250	2	2	2	2	0	EM	No significant visible defects. Veteran apple and pears, former orchard. Scattered group along embankment.	40+	Good		B3	3.0	28
G90	Salix cinerea (Grey willow)	4(0.5)	250	3	3	3	3	0	EM	No significant visible defects.	40+	Good		C2	3.0	28
G90.1	Salix cinerea (Grey willow)	3(0.5)	200	2	2	2	2	0	EM	No significant visible defects.	40+	Good		C2	2.5	28
T91	Salix fragilis (Crack Willow)	7(0.5)	350	4	4	4	4	0	M	No significant visible defects.	40+	Good		B1	4.2	55
G92	Salix fragilis (Crack Willow)	4(0.5)	250	3	3	3	3	0	EM	No significant visible defects.	40+	Good		C2	3.0	28
G93	Salix fragilis (Crack Willow)	9(1.5)	700	5	5.5	5	5	1.5	M	Decay present on stem. Cavity on stem. Forms joint canopy.2 trees.	40+	Good		B1	8.4	222
G93.1	Salix fragilis (Crack Willow)	9(1.5)	700	5	5.5	5	5	1.5	M	No obvious, significant defects.	40+	Good		B1	8.4	222
G94	Salix fragilis (Crack Willow)	9(1.5)	250	5	5.5	5	5	1.5	EM	No significant visible defects.	40+	Good		B1	3.0	28
G95	Salix fragilis (Crack Willow)	9(1.5)	250	5	5.5	5	5	1.5	EM	No significant visible defects.	40+	Good		B1	3.0	28

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
G96	Crataegus monogyna (Hawthorn), Salix fragilis (Crack Willow)	6(1)	250	3	3	3	3	1	EM	Part of linear group. Ivy on tree. Unable to inspect stem due to undergrowth. Crown lifted to current dimensions. Forms joint canopy. Scattered groups along boundary of drive. Part managed for access. Adjacent to hard surface access drive.	40+	Fair		**B2**	3.0	28
W97	Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash), Salix fragilis (Crack Willow)	20(4)	600	4	4	4	4	3	M	Woodland belt around fishing lake that extends along field/lane boundary. Dominated by ancient pollarded willows.	40+	Good		**A1, 3**	7.2	163
G97.1	Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash), Salix fragilis (Crack Willow)	12(4)	300	4	2	4	2	1	M	Woodland belt around lake of close grown unthinned trees..	40+	Good		**A1, 3**	7.2	163
G98	Malus (Apple),Pyrus (Pear)	4(0.5)	250	2	2	2	2	0	EM	No significant visible defects. Veteran apple and pears, former orchard. Scattered group along embankment.	40+	Good		**B3**	3.0	28

Tree No.	Name (Common & Scientific)	Ht (m)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
G99	Salix fragilis (Crack Willow), Crataegus monogyna (Hawthorn)	12(0.5)	1000	5	5	5	5	0.5	LM	Group either side of the track, a mix of lapsed pollard willows, occasional maiden tree and managed hawthorn. Several trees with considerable crown die-back.	20+	Fair		C2	12.0	452
G100	Salix fragilis (Crack Willow), Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash)	12(0.5)	1000	5	5	5	5	0.5	LM	Hedge bank with mature ash, pollard willows and understorey of hawthorn.	20+	Fair		C2	12.0	452

Table 1 from BS 5837:2012

Trees in relation to design, demolition & construction – Recommendations. 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.*			RED
	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)	GREEN
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	BLUE
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	GREY

APPENDIX C
Legal Constraints

Trees outside the site/property

Landowners and managers have a duty of care not to damage trees on the neighbouring land. The common causes of damage (root damage, compaction, physical damage and inexpert pruning) must be avoided through good planning and site management.

However, branches and roots from trees on adjacent properties that extend over boundaries can be pruned back to the boundary line without the permission of the owners. However, the branch material belongs to the tree owner and should be returned where appropriate.

Statutory wildlife obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife & Countryside Act 1981, and it is an offence to disturb injure or kill a nesting bird intentionally or to take damage or destroy an occupied nest or egg. If nesting birds are discovered works on the trees should be deferred until the nests are abandoned. Care should be taken during any felling operation, or surgery works to trees to avoid damage or disturbance to birds during the nesting season.

Tree Preservation Orders

Advice can be found at: http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/tree-preservation-orders-general/

Conservation Areas

Advice can be found at: http://planningguidance.communities.gov.uk/blog/guidance/tree- preservation-orders/protecting-trees-in-conservation-areas/

Important: Exceptions for tree work relating to planning permission and permitted development from the Planning Practice Guidance 15 April 2015 paragraph 36-083-20150415.

Under the heading "Is there an exception for tree work relating to planning permission and permitted development?", of the PPG states:

"The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree has to be removed to make way for a new building for which planning permission has been granted.

Conditions or information attached to the permission may clarify what work is exempt.

However, the authority's consent is required for works on trees subject to an Order if:

- development under a planning permission has not been commenced within the relevant time limit (i.e. the permission has 'expired'):
- only outline planning permission has been granted; and
- it is not necessary to carry out works on protected trees in order to implement a full planning permission."

Felling licence

In any calendar quarter*, you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold. Contact your local Forestry Commission office if you are not certain whether these exemptions apply.

*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October 31 December

Exemptions: Certain types of felling do not need permission from the Forestry Commission. The Forestry Act 1967, as amended, and related regulations give these exceptions in full. The main categories are listed below:

Lopping and topping (which usually includes tree surgery, pruning and pollarding).

Felling included in an approved dedication plan.

Felling fruit trees, or trees growing in a garden, orchard, churchyard or designated public open space (e.g. under the Commons Act 1899).

Felling trees which, when measured at the height of 1.3 metres from the ground:

- have a diameter of 8 centimetres or less; or if thinnings have a diameter of 10 centimetres or less; or
- if coppice (i.e. managed by cutting to promote multi-stemmed growth arising at or near ground level) or underwood, have a diameter of 15 centimetres or less.

Felling trees immediately required for carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) or for work carried out by certain providers of gas, electricity and water services and which is essential for the provision of these services.

Felling necessary for the prevention of danger or the prevention or abatement of a nuisance (e.g. which may involve the threat of danger to a third party). This exemption will only apply if there is a real rather than a perceived danger. We may be able to give you advice that would minimise the danger without felling the trees. We strongly recommend that you contact us if you are considering felling a tree or trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present a real or immediate danger.

Felling necessary to prevent the spread of a quarantine pest or disease and done in accordance with a notice served by a Forestry Commission Plant Health Officer (under the Plant Health (Forestry) (Great Britain) Order 1993, as amended.

The felling is done in compliance with any obligation imposed by or under an Act of Parliament.

More advice can be found at

http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf

APPENDIX D
Tree Protection Site Notice

Arboricultural Site Considerations – To be displayed in a prominent place.

Tree Protective Barriers must be regarded as sacrosanct and must not be removed or altered without prior consultation with either the Local Planning Authority (LPA) or the arboricultural consultant responsible for the site supervision.
Ground protection must not be lifted or removed without prior consultation with either the LPA or the arboricultural consultant responsible for the site supervision.
Damage caused to protective fencing or ground protection must be reported to the site supervisor immediately to ensure efficient repair.
No materials, chemicals, machinery or vehicles must be stored within the Construction Exclusion Zone as defined on the Tree Protection Plan (TPP) and identified on site by fencing and above ground root protection.
No materials must be rested against a tree's trunk or machinery chained to it.
No pruning of trees may be undertaken by anyone other than an arborist, and all work must be approved by the supervising arboricultural consultant.
Any physical damage caused to a tree retained on site must be reported to the site manager so remedial work can be undertaken without delay.
Builder's sand, which contains salt, must not be used to back fill excavation within or in close proximity to tree roots, as this can have a toxic affect. Sharp sand can be used instead.
Material that will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, must not be discharged within 10 metres of a tree stem.
Fires must not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and wind direction.
Notice boards, telephone cables or other services must not be attached to any part of a tree.

evolve TREE CONSULTANCY plan • develop • grow

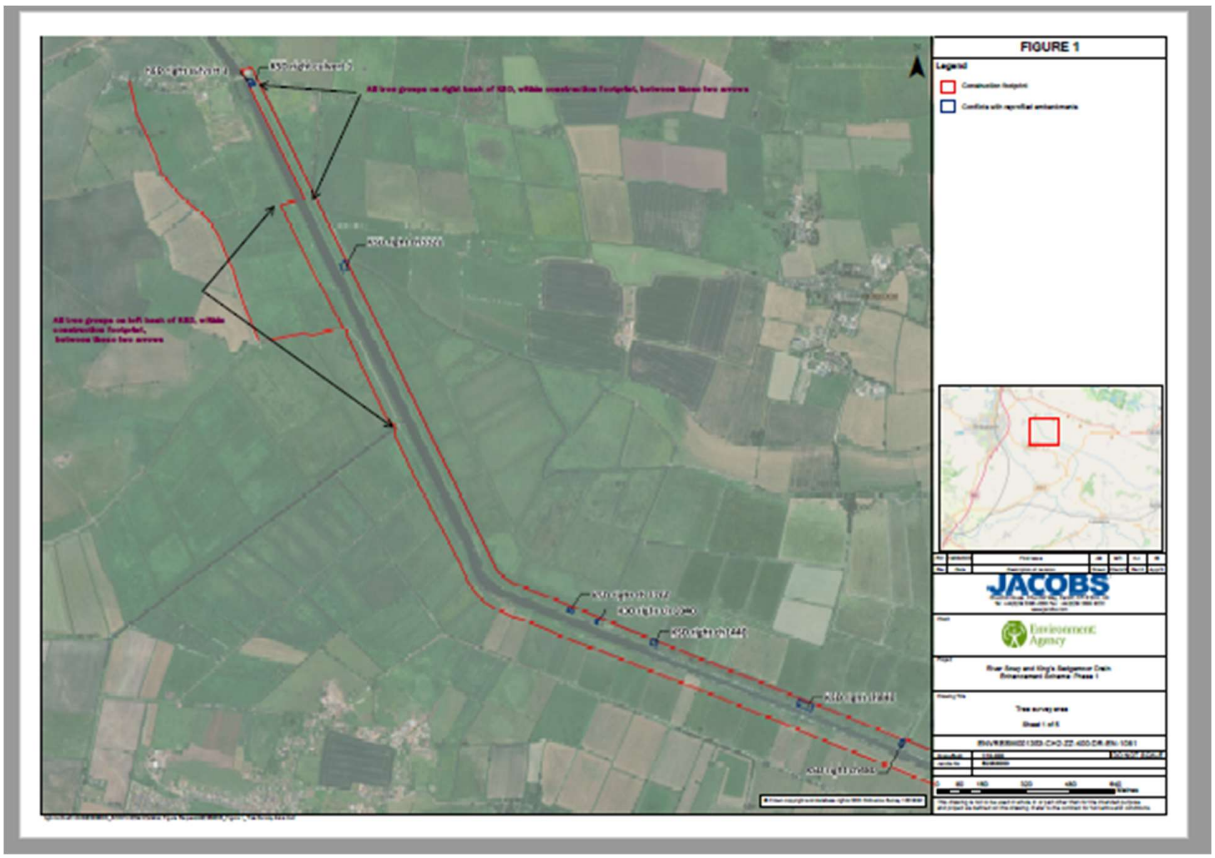
Evolve Tree Consultancy
8 Duke Street
Truro
Cornwall
TR1 2QE
01872 276099
01872 240026

11-15 Dix's Field
Exeter
Devon
EX1 1QA
01392 927402

office@evolvetrees.co.uk

APPENDIX E

Site Survey Area Sheets 1-5 from Jacobs Uk Ltd B236800_Figure 1_Tree Survey Area_v2



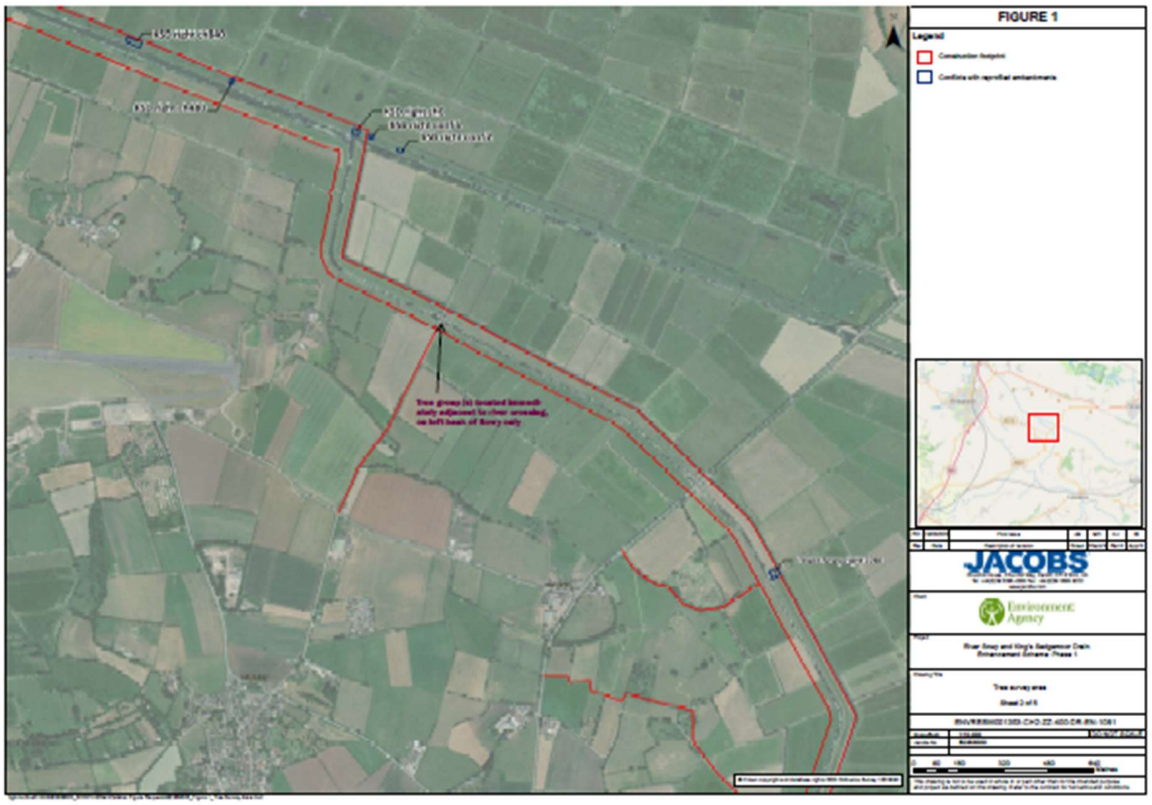


FIGURE 1
Legend
Construction footprint
Confirm with agricultural embankments
Tree group (x) located beneath
shaly adjacent to river crossing,
on left bank of Bevy only
JACOBS
Environment Agency
River Bevy and King's Sedgemoor Drain
Enhancement Scheme Phase 1
Tree survey area
Sheet 2 of 6
Kilometres

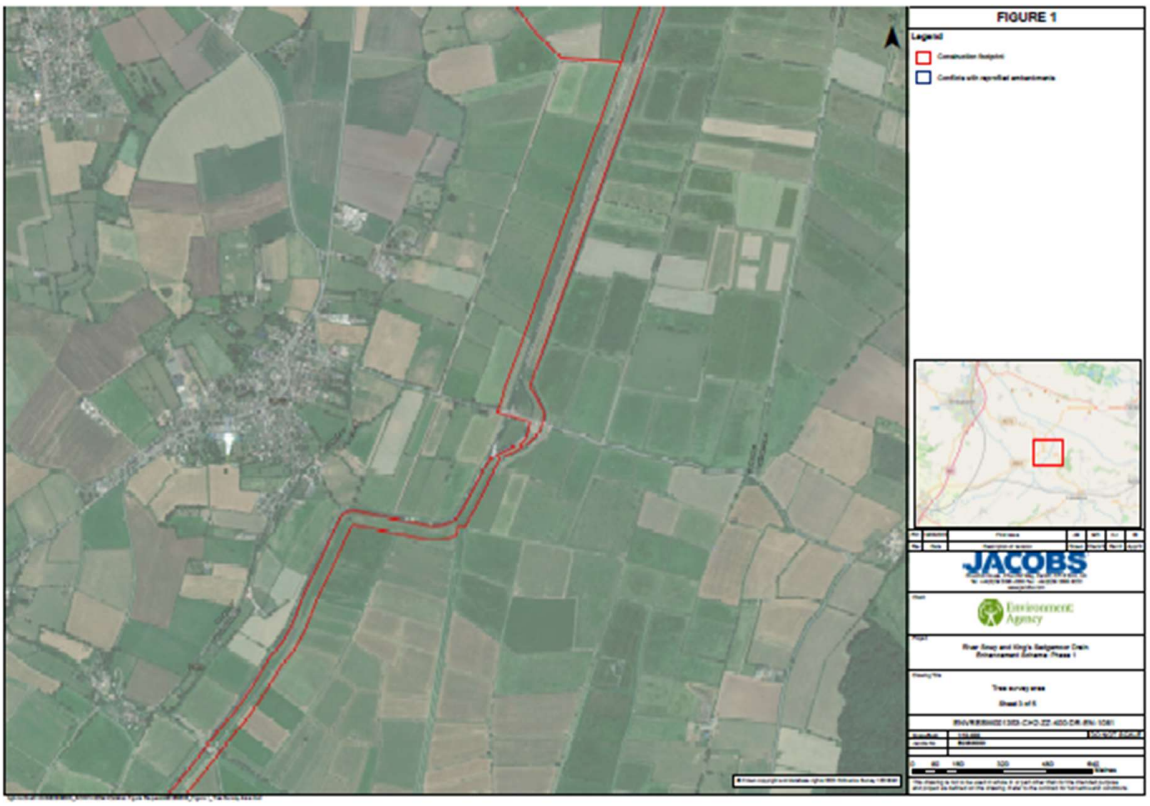


FIGURE 1
Legend
Construction footprint
Confirm with agricultural embankments
JACOBS
Environment Agency
River Bevy and King's Sedgemoor Drain
Enhancement Scheme Phase 1
Tree survey area
Sheet 3 of 6
Kilometres

FIGURE 1
Legend
Construction footprint
Confirm with agricultural contractors
JACOBS
Environment Agency
River Soup and King's Sedgemoor Drain Enhancement Scheme: Phase 1
Tree survey area
Sheet 4 of 5
0 80 160 320 480 640
Metres

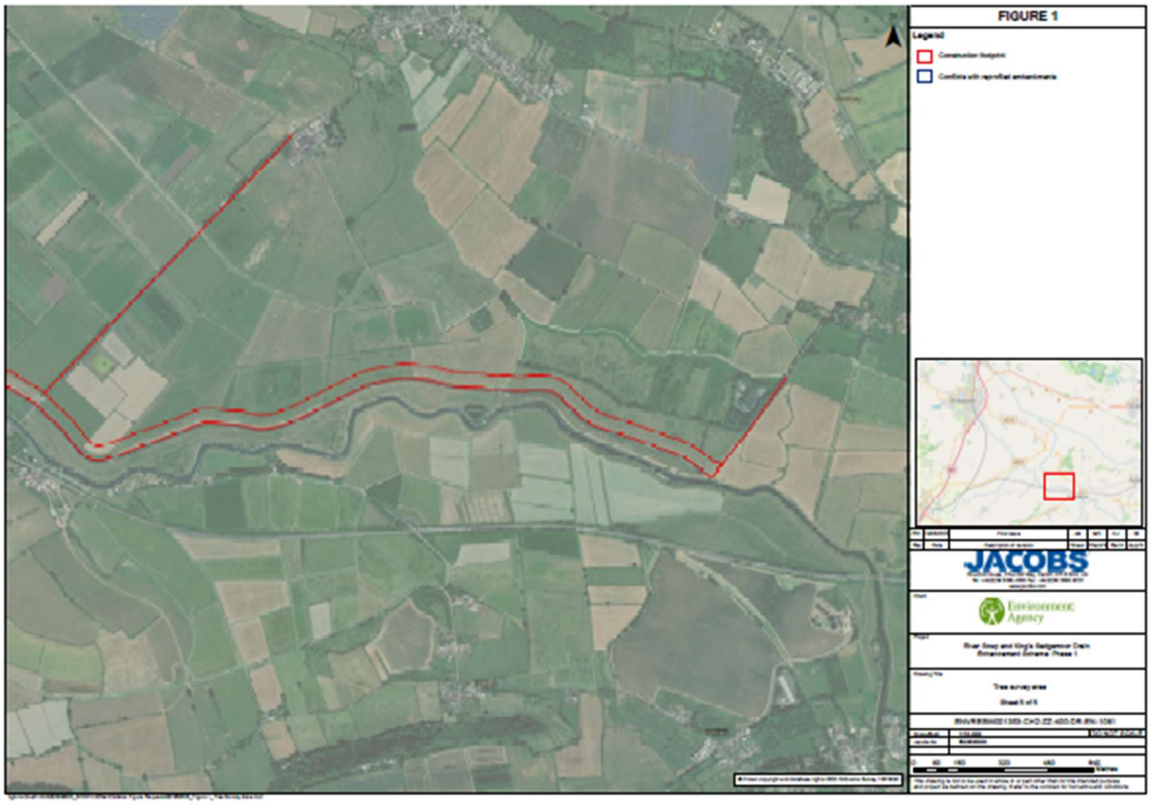


FIGURE 1
Legend
Construction footprint
Confirm with agricultural contractors
JACOBS
Environment Agency
River Soup and King's Sedgemoor Drain Enhancement Scheme: Phase 1
Tree survey area
Sheet 5 of 5
0 80 160 320 480 640
Metres

Parchey Bridge

G1-B2
Ash, Hawthorn,
Common Alder,
White Willow

Ward Lane

T2-C1
Ash

G48-A2
Hawthorn,
Ash, Holly,
White Willow

T3-B2
Ash

T4-C1
Hawthorn

T3.1-B2
Ash, Common Alder

G5-B2
Ash, Hawthorn

King's Sedgemoor Drain

Existing embankments
re-profiled to provide fill

G6-B2
Ash, Hawthorn, Common Alder

G7-B2
Hawthorn, Common Alder, White Willow

G8-B1
White Willow,
Hawthorn

Scheduled Monument: Ancient trackway at
Sutton Hams

G9-C1
Hawthorn,
Field Maple

G10-B2
Hawthorn,
Field Maple,
White Willow

Maintenance access
track

G11-B2
Common Alder, Hawthorn

T47-C1
Grey willow,
Goat Willow

G12-C2
Common Alder,
Hawthorn,
Field Maple

T13-C1
Grey willow

T14-C1
Grey willow

G15-C2
Hawthorn,
White Willow

G16-C2
Hawthorn,
White Willow

G17-C2
Hawthorn, Ash, White Willow

Chedzoy new cut drain access platform
above the desired design level, raised
earth bank to tie with local high ground

G18-C2
Hawthorn, White Willow

Existing high ground is above design level and will contribute
to increased conveyance/flood defence along channel

G19-C2
Ash, Common Alder

REGISTERED BATTLEFIELD
(Battle of Sedgemoor 1685)

G20-C2
Ash, Common Alder

G21-C2
Common Alder, Hawthorn

G22-C2
Common Alder, Hawthorn

G23-C2
Grey willow

Pylon structure adjacent to the works,

G24-C2
Common Alder,
Hawthorn

T45-C1
Grey willow

T25-C1
White Willow

G26-C2
Common Alder,
Hawthorn,
White Willow

G27-C2
Common Alder

T28-C1
White Willow

G29-B2
Ash,
White Willow

T30-C1
White Willow

LANG MOOR LOCAL WILDLIFE SITE

T44-B3
White Willow

G43-C1
White Willow,
Grey willow

King's Sedgemoor Drain
right bank raising

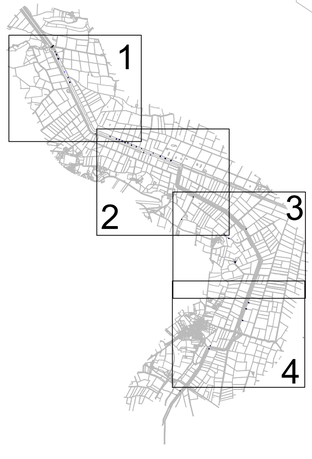
G31-B2
Common Alder

G32-B2
Common Alder, Ash

G33-B2

G34-B2

Cossignton Right Outfall - refer to details in drawing,
ENVRESW001353-CH2-XX-4KS-DR-C-2010



Important: Please note that this plan is to be viewed in colour and at the scale and size presented. It is likely to be difficult to read if presented in a smaller format. Important features of the plan are colour coded and the data processed, and conclusions drawn, may be difficult to assess if presented in black and white.

We have undertaken the survey in accordance with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).

The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Trees have been surveyed as groups where they form cohesive features either aerodynamically (i.e. they form a discrete group feature providing companion), culturally (i.e. they are composed of trees of a similar size, age and species subject to the same management) or visually (i.e. where the value of the trees within the group is as a whole rather than individually). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Only trees over 75 millimetres diameter at breast height (at 1.5 metres above ground level) have been included in the survey unless I have assessed them as being of particularly high value in terms of amenity. Other shrub vegetation on the site that has not been specifically included in this report is not relevant in terms of planning assessment.

Any incursion into the RPA will be viewed unfavourably and will need to be supported by a strong argument. The closer to the stem the greater the risk to the trees and the greater the likelihood of the proposals being deemed unacceptable.

Sufficient room must be left for working and access space. This must be outside the RPA.

Legend

- U Grade trees
- A Grade trees
- B Grade trees
- C Grade trees
- Trees to be removed

The area surveyed included all trees within the areas where:
(i) existing embankments would be reprofiled to produce fill and
(ii) trees identified as potentially requiring felling within drawing numbers ENVRESW001353-CH2-ZZ-4KS-DR-C-2011 (P01) and ENVRESW001353-CH2-ZZ-4KS-DR-C-2012 (P02)

evolve
TREE CONSULTANCY
plan • develop • grow

8 Duke Street Truro Cornwall TR1 2QE
T 01872 276099 01872 240026

11-15 Dix's Field Exeter Devon EX1 1QA
T 01392 927402

E office@evolvetrees.co.uk
W www.evolvetrees.co.uk

Revision	Description	Date
C	Amending detail	31/07/20
B	Labelling	28/07/20
A	Sheet Numbering, Font Size	23/07/20

Client Jacobs UK Ltd

Project River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Drawing title
Tree Constraints Plan & Arboricultural Impact Assessment - Sheet 1

Date Jun 2020 Scale 1:2000 at A1

Drawn by TSE Job Ref 3416-B

Drawing Number
EV-3416-B-TCP-AIA-07-20

MOORLINCH SSSI,
SPA, RAMSAR

mmon Alder,
awthorn,
hite Willow

G27-C2
Common Alder

T28-C1
White Willow

G29-B2
Ash,
White Willow

T30-C1
White Willow

-C1
te Willow,
y willow

G31-B2
Common Alder

King's Sedgemoor Drain
right bank raising

G32-B2
Common Alder, Ash

G33-B2
Common Alder,
Ash

G34-B2
Common Alder, Ash

G42-C1
Grey willow

G35-B2
Common Alder

G36-B2
Common Alder, Ash

G37-B2
Common Alder, Ash

G41-C1
White Willow

G38-B2
Hawthorn

G39-B2
White Willow
Remove 2 trees
as shown

G63-C2
Hawthorn

G65-B2
Common Alder

G64-C2
Hawthorn

G66-C2
Hawthorn

G40-B2
White Willow

T62-B1
White Willow

Remove tree as
shown

Footpath access bridge

G61-B2
Grey willow, Goat Willow,
Osier, Crack Willow,
White Willow

Material won from WFD creation will be
landscaped behind the bank raising

G68-B2
Common Alder

G69-B2
Common Alder

G69.1-B2
Common Alder

Sowy River confluence
with the KSD

GREYLAKE RSPD RESERVE
LOCAL WILDLIFE SITE

G59-C2
Grey willow

G58-C2
Grey willow

Chilton Right Outfall - refer to details in drawing
ENVRESW001353-CH2-XX-4KS-DR-C-2009

G60-B2
Grey willow, Goat Willow, Osier, Crack Willow, White Willow

Note:
Footpath access bridge
King's Sedgemoor Drain right and left
embankment raising chainage starts at
the confluence with the River Sowy

GREYLAKE RSPD RESERVE
LOCAL WILDLIFE SITE

King's Sedgemoor Drain Left Bank Raising

Footpath access bridge adjacent to
the confluence of the KSD and the
River Sowy

Existing high ground is above design level and
will contribute to increased conveyance/flood
defence along the channel

G70.2-A2
White Willow, Hawthorn

G70-B2
White Willow

Raised earth embankment to
tie in with high ground on both
sides of the farm access road

Sowy River

G74-B2
White Willow,
Elder, Crack Willow,
Hawthorn,
Blackthorn

G73-B2
Field Maple,
White Willow,
Hawthorn, Elder

G72-B2
Field Maple, Hawthorn,
Blackthorn, Elder
, Hazel, Crab Apple,
White Willow

G71-B2
Field Maple,
Sycamore

Raised earth embankment to
tie in with high ground on both
sides of the A361

GREYLAKE
GEOLOGICAL SSSI

Sandy Lane farm a
raised earth emba
in with adjacent hi
the left bank

T75.1-B1
Crack Willow

G75-B2
Hawthorn

1
2
3
4

Important: Please note that this plan is to be viewed in colour and at the scale and size presented. It is likely to be difficult to read if presented in a smaller format. Important features of the plan are colour coded and the data processed, and conclusions drawn, may be difficult to assess if presented in black and white.

We have undertaken the survey in accordance with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).

The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Trees have been surveyed as groups where they form cohesive features either aerodynamically (i.e. they form a discrete group feature providing companion), culturally (i.e. they are composed of trees of a similar size, age and species subject to the same management) or visually (i.e. where the value of the trees within the group is as a whole rather than individually). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Only trees over 75 millimetres diameter at breast height (at 1.5 metres above ground level) have been included in the survey unless I have assessed them as being of particularly high value in terms of amenity. Other shrub vegetation on the site that has not been specifically included in this report is not relevant in terms of planning assessment.

Any incursion into the RPA will be viewed unfavourably and will need to be supported by a strong argument. The closer to the stem the greater the risk to the trees and the greater the likelihood of the proposals being deemed unacceptable.

Sufficient room must be left for working and access space. This must be outside the RPA.

Legend

- U Grade trees
- A Grade trees
- B Grade trees
- C Grade trees
- Trees to be removed

The area surveyed included all trees within the areas where:
(i) existing embankments would be reprofiled to produce fill and
(ii) trees identified as potentially requiring felling within drawing numbers ENVRESW001353-CH2-ZZ-4KS-DR-C-2011 (P01) and ENVRESW001353-CH2-ZZ-4KS-DR-C-2012 (P02)

evolve
TREE CONSULTANCY
plan • develop • grow

8 Duke Street Truro Cornwall TR1 2QE
T 01872 276099 01872 240026

11-15 Dix's Field Exeter Devon EX1 1QA
T 01392 927402

E office@evolvetrees.co.uk
W www.evolvetrees.co.uk

Revision	Description	Date
C	Amending detail	31/07/20
B	Labelling	28/07/20
A	Sheet Numbering, Font Size	23/07/20

Client Jacobs UK Ltd

Project River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Drawing title
Tree Constraints Plan & Arboricultural Impact Assessment - Sheet 2

Date Jun 2020 Scale 1:2000 at A1

Drawn by TSE Job Ref 3416-A

Drawing Number
EV-3416-A-TCP-AIA-07-20

G70.2-A2
White Willow, Hawthorn

G70-B2
White Willow

embankment to
h ground on both
arm access road

No embankment raising on the right bank of the Sowy downstream of the A361

Sowy River

A361 road bridge

G74-B2
White Willow, Elder, Crack Willow, Hawthorn, Blackthorn

G73-B2
Field Maple, White Willow, Hawthorn, Elder

G72-B2
Field Maple, Hawthorn, Blackthorn, Elder, Hazel, Crab Apple, White Willow

G71-B2
Field Maple, Sycamore

Raised earth embankment to tie in with high ground on both sides of the A361

G57.1-A2
White Willow, Hawthorn

G57-A2
White Willow, Hawthorn

Lower Sowy right bank raising ends at Chainage 2650 metres

GREYLAKE
GEOLOGICAL SSSI

Sandy Lane farm access road, raised earth embankment to tie in with adjacent high ground on the left bank

G55-B1
White Willow

Tree felling required on the right bank of the Lower Sowy at Sandy Lane to allow the raised earth embankment to tie in with the raised road

T75.1-B1
Crack Willow

G75-B2
Hawthorn

T76-B1
Hybrid Black Poplar

G77-B1
Hybrid Black Poplar

G78-B1
Hybrid Black Poplar

G83-B2
Hawthorn, Hazel, Ash, Crack Willow, Elder

G79-B2
Hawthorn, English Elm, Elder

G81-B2
Crack Willow

G80-B2
Crack Willow

G82-B2
Hawthorn, English Elm, Elder

G54-A2
White Willow, Hawthorn

Sandy Lane road surface raised to tie in with raised earth embankment works

G53-A2
White Willow, Hawthorn
Remove 4 trees as shown

Langacre Rhyne

Farm access road raised on both sides of the Lower Sowy to tie in with the raised earth embankment

Farm access bridge

Existing high ground is above design level and will contribute to increased conveyance/flood defence along the channel

1
2
3
4

Important: Please note that this plan is to be viewed in colour and at the scale and size presented. It is likely to be difficult to read if presented in a smaller format. Important features of the plan are colour coded and the data processed, and conclusions drawn, may be difficult to assess if presented in black and white.

We have undertaken the survey in accordance with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).

The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Trees have been surveyed as groups where they form cohesive features either aerodynamically (i.e. they form a discrete group feature providing companion), culturally (i.e. they are composed of trees of a similar size, age and species subject to the same management) or visually (i.e. where the value of the trees within the group is as a whole rather than individually). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Only trees over 75 millimetres diameter at breast height (at 1.5 metres above ground level) have been included in the survey unless I have assessed them as being of particularly high value in terms of amenity. Other shrub vegetation on the site that has not been specifically included in this report is not relevant in terms of planning assessment.

Any incursion into the RPA will be viewed unfavourably and will need to be supported by a strong argument. The closer to the stem the greater the risk to the trees and the greater the likelihood of the proposals being deemed unacceptable.

Sufficient room must be left for working and access space. This must be outside the RPA.

Legend

- U Grade trees
- A Grade trees
- B Grade trees
- C Grade trees
- Trees to be removed

The area surveyed included all trees within the areas where:
(i) existing embankments would be reprofiled to produce fill and
(ii) trees identified as potentially requiring felling within drawing numbers ENVRESW001353-CH2-ZZ-4KS-DR-C-2011 (P01) and ENVRESW001353-CH2-ZZ-4KS-DR-C-2012 (P02)

evolve TREE CONSULTANCY plan • develop • grow
8 Duke Street Truro Cornwall TR1 2QE
T 01872 276099 01872 240026
11-15 Dix's Field Exeter Devon EX1 1QA
T 01392 927402
E office@evolvetrees.co.uk
W www.evolvetrees.co.uk

Revision	Description	Date
C	Amending detail	31/07/20
B	Labelling	28/07/20
A	Sheet Numbering, Font Size	23/07/20

Client Jacobs UK Ltd

Project River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Drawing title
Tree Constraints Plan & Arboricultural Impact Assessment - Sheet 3

Date Jun 2020 Scale 1:2000 at A1

Drawn by TSE Job Ref 3416-A

Drawing Number
EV-3416-A-TCP-AIA-07-20

Existing high ground is above design level and will contribute to increased conveyance/flood defence along the channel

G51-C2
Hawthorn

G50.1-B2
White Willow

G50-B1
White Willow

Buried LV cable and overhead HV cable along with a utility pole on the right bank of the Lower Sowy adjacent to Beer Wall

G49-B2
White Willow

Existing narrow bank to be topped up to the desired flood defence level, 1m crest width with 1 in 3 side slopes

A372 Beer Wall

G87.2-B2
Crack Willow

T87.2-B2
Crack Willow

G87.1-B2
Crack Willow

G86-B3
Crack Willow

1
2
3
4

Important: Please note that this plan is to be viewed in colour and at the scale and size presented. It is likely to be difficult to read if presented in a smaller format. Important features of the plan are colour coded and the data processed, and conclusions drawn, may be difficult to assess if presented in black and white.

We have undertaken the survey in accordance with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).

The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Trees have been surveyed as groups where they form cohesive features either aerodynamically (i.e. they form a discrete group feature providing companion), culturally (i.e. they are composed of trees of a similar size, age and species subject to the same management) or visually (i.e. where the value of the trees within the group is as a whole rather than individually). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Only trees over 75 millimetres diameter at breast height (at 1.5 metres above ground level) have been included in the survey unless I have assessed them as being of particularly high value in terms of amenity. Other shrub vegetation on the site that has not been specifically included in this report is not relevant in terms of planning assessment.

Any incursion into the RPA will be viewed unfavourably and will need to be supported by a strong argument. The closer to the stem the greater the risk to the trees and the greater the likelihood of the proposals being deemed unacceptable.

Sufficient room must be left for working and access space. This must be outside the RPA.

Legend

- U Grade trees
- A Grade trees
- B Grade trees
- C Grade trees
- Trees to be removed

The area surveyed included all trees within the areas where:
(i) existing embankments would be reprofiled to produce fill and
(ii) trees identified as potentially requiring felling within drawing numbers ENVRESW001353-CH2-ZZ-4KS-DR-C-2011 (P01) and ENVRESW001353-CH2-ZZ-4KS-DR-C-2012 (P02)

evolve TREE CONSULTANCY plan•develop•grow

8 Duke Street Truro Cornwall TR1 2QE
T 01872 276099 01872 240026

11-15 Dix's Field Exeter Devon EX1 1QA
T 01392 927402

E office@evolvetrees.co.uk
W www.evolvetrees.co.uk

Revision	Description	Date
C	Amending detail	31/07/20
B	Labelling	28/07/20
A	Sheet Numbering, Font Size	23/07/20

Client Jacobs UK Ltd

Project River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Drawing title

Tree Constraints Plan & Arboricultural Impact Assessment - Sheet 4

Date Jun 2020 Scale 1:2000 at A1

Drawn by TSE Job Ref 3416-A

Drawing Number
EV-3416-A-TCP-AIA-07-20

Arboricultural Method Statement

River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1

Reference: EV-3614-A-AMS

Site Visit Date: 14 & 15 July 2020

Report Date: 30 July 2020

8 Duke Street Truro Cornwall TR1 2QE
01872 276 099

3rd Floor 11-15 Dix's Field Exeter Devon EX1 1QA
01392 927 402

office@evolvetrees.co.uk

1 INSTRUCTIONS

1.1 As part of our survey and reporting instruction, Jacobs UK Ltd (on behalf of the Environment Agency) instructed us, Evolve Tree Consultancy to provide an Arboricultural Method Statement for the proposed works.

2 SUPPORTING DOCUMENTATION

2.1 This report and associated plans and findings are based on the documents provided, as listed in the Evolve 3614-C Tree Survey TCP-AIA 07-20.

2.2 The protection measures are described in Section 3 below with reference the Evolve RS-KSD Phase 1 TCP-AIA Plan 3614-C dated 07-20.

3 TREE PROTECTION PROPOSALS

3.1 Based on the information provided to date, this report provides defined tree protection proposals (related to the design) which can be implemented without further specification.

3.2 Tree Protection Barriers. Given the scattered nature of the retained trees and groups of trees and that the works are taking place along a relatively long stretch of land the implementation to tree protection is not feasible or reasonable.

3.3 The plant used for the work will always be instructed to stay outside of the dripline (the outer limit of the crowns of the trees). This area will broadly equate to the RPA of the retained trees, can be readily understood and easily managed.

3.4 Trees to be felled are listed in Table 1.

Tree No.	Tree Species	Action
G10	Hawthorn, Field maple & Willow	Fell
T28	Willow	Fell
G29	Ash, willow	Fell one tree.
G39	Willow	Fell one tree.
G53	Willow	Fell 4 trees.
G67	Alder	Fell 2 trees.

Table 1. Tree loss

3.5 Please refer to drawing number EV-3614-C-TCP-AIA dated 07-20.

4 ARBORICULTURAL METHOD STATEMENT

4.1 This Arboricultural Method Statement will provide the required protection for trees onsite. The following sequence will be followed:

- Tree removal.
- Commencement of ground works.
- Construction.
- Remedial tree surgery, where required.

4.2 A copy of this Method Statement shall be supplied to all relevant site personnel who are working in proximity to retained trees and a register maintained in the site office to verify receipt.

4.3 Any variation to the method statement will need to be agreed with the local planning authority before commencing work.

4.4 This document is to be read in conjunction with the survey report Evolve 3614-C and Evolve Plan 3416-C TCP-AIA. Any queries are to be referred to the arboriculturist.

4.5 The contractor will provide adequate training on the above for all relevant staff. This training will be carried out by or to the approval of a qualified arboricultural consultant. Any operatives undertaking work in the RPA must be briefed using the method statement and supervised at all times by an arborist or supervisor experienced in working within the RPA.

4.6 All reasonable steps must be taken to ensure that no damage is done to the trunks or lower branches when using mechanical equipment such as excavators, cranes or aerial access platforms in the proximity of trees.

4.7 **Tree surgery:** Work in accordance with the recommendations for individual trees (as recorded in the Tree Survey Schedule) shall be undertaken either prior to all demolition/construction operations being started or at the post development stage. Prior to this surgery an updated Visual Tree Assessment will be made on the condition of the retained trees. Any amendments to the original recommendations to be recorded in a report and agreed with the manager or agent and the LPA tree officer.

4.8 **Implementation of works:** All tree works will be carried out to BS 3998 Recommendations for Tree Work and current best practice as modified by research.

4.9 **Tree Removal:** All trees agreed for removal will be felled. Shrubs and other plants will be cut back or removed as desired. Removal of trees shall be done with care to prevent damage to other specimens to be retained. Where necessary, trees will be removed in sections rather than felled from the ground to prevent them falling into and damaging the crowns of other trees.

4.10 **Stumps:** Stumps of any felled trees shall be removed where necessary for the construction work. They will be retained where this can be achieved without disturbing affecting the construction. Those that lie within the RPAs of trees to be retained shall be removed by grinding out; the remainder may be either ground or dug out.

4.11 **On Site Storage of Spoil and Building Materials:** Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA.

4.12 **Storage:** Areas for the storage of materials shall be outside the RPAs and be clearly marked. Oil, bitumen, diesel, and cement shall not be stored, mixed or discharged within 10 m of any trees. Areas for the storage or mixing of such materials shall be agreed at the pre-contract meeting and be clearly marked.

4.13 There will be no harmful works e.g. machinery movement, storage, cement mixing, cement washings etc within the RPA other than those specified in the method statement.

4.14 No notice boards or power or telephone cables shall be attached to any of the trees.

4.15 Fires will not be lit in a position where flames can extend WITHIN 5 m of foliage or branches and must take account of the size of the fire and the wind direction including changes in that direction.

4.16 **Excavations.** Under no circumstances is any machinery to drive into the RPA of the retained except where the embankment works within the red area on the TCP-AIA.

4.17 Excavations should be carried out from outside the RPA and from within the footprint of the existing surfacing or building where within the RPA of a tree.

4.18 The excavated material must not be stockpiled within the RPAs of the retained trees and must be exported without crossing the RPA.

4.19 Due care and planning must be taken to ensure that the operational arcs of excavators do not damage the retained trees.

4.20 Once the hard surfacing is removed, suitable protective fencing is to be erected at the boundary of the RPA.

4.21 Any cuts to roots must be made perpendicular to the root leaving the smallest wound. Cuts are to be made with a sharp tool such as a pruning saw or secateurs to leave a clean surface with no ragged edges. The wounds are not to be treated with anti-wound product.

4.22 All roots greater than 25 millimetre in diameter are to be retained and worked around. Where clumps of smaller roots are encountered, they are to be retained. No roots greater than 25 millimetres in diameter are to be severed without the consent of the supervising arboriculturist.

4.23 Where excavations containing retained roots are to be left open clean hessian sacking is to be wrapped around the roots and kept moist.

Tim Scott-Ellis BSc Hons (For), Dip Arb (RFS), F Arbor A, MICFor, MRICS
Evolve Tree Consultancy

I am a Fellow of the Arboricultural Association, a Chartered Arboriculturist and a Chartered Surveyor. I hold an honours degree in Forestry and the Royal Forestry Society Professional Diploma in Arboriculture. I have been working as a full-time, professional arboriculturist since 1999.

RICS

Arboricultural ASSOCIATION Fellow Member

Institute of Chartered Foresters Registered Consultant

The authority of this report ceases when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s). The statements made in this report do not consider the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Evolve Tree Consultancy

cannot accept any liability about these factors, nowhere prescribed work is not carried out in a correct and professional manner in accordance with current good practice.

The recommendations within this report remain valid for the period stated for re-inspection or twelve months from the date of survey.

The limit of Evolve Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Evolve Tree Consultancy cannot be held liable for any third-party claim that arises following or out of this report. This report remains the intellectual property of Evolve Tree Consultancy.

APPENDIX A
Legal Constraints

Trees outside the site/property

Landowners and managers have a duty of care not to damage trees on the neighbouring land. The common causes of damage (root damage, compaction, physical damage and inexpert pruning) must be avoided through good planning and site management.

However, branches and roots from trees on adjacent properties that extend over boundaries can be pruned back to the boundary line without the permission of the owners. However, the branch material belongs to the tree owner and should be returned where appropriate.

Statutory wildlife obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife & Countryside Act 1981, and it is an offence to disturb injure or kill a nesting bird intentionally or to take damage or destroy an occupied nest or egg. If nesting birds are discovered works on the trees should be deferred until the nests are abandoned. Care should be taken during any felling operation, or surgery works to trees to avoid damage or disturbance to birds during the nesting season.

Important: Exceptions for tree work relating to planning permission and permitted development from the Planning Practice Guidance 15 April 2015 paragraph 36-083-20150415.

Under the heading "Is there an exception for tree work relating to planning permission and permitted development?", of the PPG states:

"The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree has to be removed to make way for a new building for which planning permission has been granted.

Conditions or information attached to the permission may clarify what work is exempt.

However, the authority's consent is required for works on trees subject to an Order if:

- development under a planning permission has not been commenced within the relevant time limit (i.e. the permission has 'expired'):
- only outline planning permission has been granted; and
- it is not necessary to carry out works on protected trees in order to implement a full planning permission."

Felling licence

In any calendar quarter*, you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold. Contact your local Forestry Commission office if you are not certain whether these exemptions apply.

*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October 31 December

Exemptions: Certain types of felling do not need permission from the Forestry Commission. The Forestry Act 1967, as amended, and related regulations give these exceptions in full. The main categories are listed below:

Lopping and topping (which usually includes tree surgery, pruning and pollarding).

Felling included in an approved dedication plan.

Felling fruit trees, or trees growing in a garden, orchard, churchyard or designated public open space (e.g. under the Commons Act 1899).

Felling trees which, when measured at the height of 1.3 metres from the ground:

- have a diameter of 8 centimetres or less; or if thinnings have a diameter of 10 centimetres or less; or
- if coppice (i.e. managed by cutting to promote multi-stemmed growth arising at or near ground level) or underwood, have a diameter of 15 centimetres or less.

Felling trees immediately required for carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) or for work carried out by certain providers of gas, electricity and water services and which is essential for the provision of these services.

Felling necessary for the prevention of danger or the prevention or abatement of a nuisance (e.g. which may involve the threat of danger to a third party). This exemption will only apply if there is a real rather than a perceived danger. We may be able to give you advice that would minimise the danger without felling the trees. We strongly recommend that you contact us if you are considering felling a tree or trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present a real or immediate danger.

Felling necessary to prevent the spread of a quarantine pest or disease and done in accordance with a notice served by a Forestry Commission Plant Health Officer (under the Plant Health (Forestry) (Great Britain) Order 1993, as amended.

The felling is done in compliance with any obligation imposed by or under an Act of Parliament.

More advice can be found at

http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf