murray & associates
landscape architecture

TREE/HEDGEROW PROTECTION & MANAGEMENT PLAN

At

CLONBURRIS SDZ
REGISTER REFERENCE: SDZ21A/0022

FOR

CAIRN HOMES LIMITED

Murray & Associates
Landscape Architecture

16 The Seapoint Building
44-45 Clontarf Road, Dublin 3
Tel: +353 (0)1 8540090
Fax: +353 (0)1 8540095
mail@murray-associates.com
www.murray-associates.com

Member of the Irish Landscape Institute

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Issue Sheet

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1	For Issue	17-11-22	FT/IS/JW	JW

1.0 Introduction & Terms of Reference

The trees and hedgerows at the subject site at Clonburris SDZ are the subject of a number of planning conditions, as set out below. We have indicated next to each paragraph of the particular condition the relevant measure/drawing which addresses each part of the conditions.

2.0 Tree and Hedgerow Protection conditions compliance

Condition 8

Prior to the submission of the Commencement Notice within the meaning of Part II of the Building Control Regulations 1997 and prior to the commencement of any works on site including any related construction activity or tree felling:

i) The developer shall engage the services of a qualified arborist as an arboricultural consultant, for the entire period of construction activity and shall notify the planning authority of that appointment in writing. This is to ensure the protection of trees and hedgerows to be retained within and adjacent the site.

A letter confirming our appointment is appended to this report

ii) The applicant shall implement all the recommendations pertaining to tree retention, tree protection and tree works, as detailed in The Tree File Ltd drawing titled Clonburris Tree Impacts/Protection Plan EAST, dated June 2022 and Arboricultural Report as submitted on November 2021.

See sections of the report relating to inventory, protection measures, and future management, and drawings numbered :

1738_PLC_P_00 for Masterplan;
1738_PLC_P_01.1 for Masterplan - 01/02;
1738_PLC_P_01.2 for Masterplan - 02/02;
1738_PLC_P_02.1 for Boundary Treatment Plan & Details | Residential Boundaries;
1738_PLC_P_02.2 for Boundary Treatment Plan & Details | Open Space Boundaries;
1738_PLC_P_03 for Play Areas;
1738_PLC_P_04.1 for Soft Landscape Plan - 01/02;
1738_PLC_P_04.2 for Soft Landscape Plan - 02/02;
1738_PLC_P_05 for Removed/Retained/Compensatory Planting Plan;
1738_PLC_D_01 for Soft Landscape and SuDS | Details;

1738_PLC_TPP_01 for Hedgerow & Tree Protection Plan;
1738_PLC_TPP_01.1 for Hedgerow & Tree Protection Plan Zoom Area;
1738_PLC_ExViews_01 for Pre Development Photos and Location Map.

iii) A tree and hedgerow protection strategy including a Construction Stage Tree Protection Plan and Construction Stage Arboricultural Method Statement, prepared by a qualified arborist as recommended within the Tree File Ltd, Arboricultural Report in accordance with the Arboricultural Method Statement. The strategy shall include all land within the 30m buffer zone and the Fonthill Road embankment.

See report and also to be read with drawings numbered
1738_PLC_TPP_01 for Hedgerow & Tree Protection Plan;
1738_PLC_TPP_01.1 for Hedgerow & Tree Protection Plan Zoom Area;

ii) Pre Development Photo's: the applicant shall submit photographs and confirmation that fencing for retained trees/hedgerows meets BS5837:2012. 'Trees in Relation to Design, Demolition and Construction – Recommendations' for the written agreement of the Public Realm Section. This shall include a location map of where each picture was taken from.

See drawing *1738_PLC_ExViews_01*

iii) All land within the 30m buffer zone is to be fenced off to protect it. Such an area is very sensitive to development, it should not be used for stockpiling soils or material or for any other storage function. It should not be dug up or the ground otherwise disturbed.
Areas of vegetation, hedgerows and individual trees to be protected with fencing to be as BS5837: Trees in relation to design, demolition, and construction.

See drawing *1738_PLC_TPP_01*

iv) All works on retained trees shall comply with proper arboricultural techniques conforming to BS 3998:2010 Tree Work – Recommendations. The clearance of any vegetation including trees and scrub shall be carried out outside the bird-breeding season (1st day of March to the 31st day of August inclusive) or as stipulated under the Wildlife Acts 1976 and 2000.

This is detailed in the hedgerow and tree management section.

v) The arborist shall carry out a post construction tree survey and assessment on the condition of the retained trees. A completion certificate is to be signed off by the arborist when all permitted development works are completed and in line with the recommendations of the tree report. The certificate shall be submitted to the planning authority for written agreement upon completion of the works.
REASON: To ensure the protection, safety, prudent retention and long term viability of trees to be retained on and immediately adjacent to the route.

We confirm that we will inspect the protection at regular intervals and will issue the certificate on completion of the works.

Tree and Hedgerow Retention
Condition 10
Prior to the submission of Commencement Notice within the meaning of Part II of the Building Control Regulations 1997 and prior to the commencement of any works on site, the applicant, owner or developer shall have lodged with the Planning Authority for agreement by Public Realm, a hedgerow management plan that shows the amount of hedgerow being removed (mapped and linear metres) and the amount of compensatory/replacement hedgerow being planted (mapped and linear metres) as part of the proposals.
REASON: In the interests of adequate GI provision and compliance with the Planning Scheme in relation to monitoring of hedgerow removal.

See hedgerow management plan and :
1738_PLC_TPP_01 for Hedgerow & Tree Protection Plan;
1738_PLC_TPP_01.1 for Hedgerow & Tree Protection Plan Zoom Area;

660 lin.m of existing hedgerows are to be retained, and there will be 815 lin.m of new hedgerow established per the compliance drawings.

This report sets out the procedures and details that will be implemented in order to satisfy the conditions of planning. The following drawings are listed for reference:

1738_PLC_P_00 for Masterplan;
1738_PLC_P_01.1 for Masterplan - 01/02;
1738_PLC_P_01.2 for Masterplan - 02/02;
1738_PLC_P_02.1 for Boundary Treatment Plan & Details | Residential Boundaries;
1738_PLC_P_02.2 for Boundary Treatment Plan & Details | Open Space Boundaries;
1738_PLC_P_03 for Play Areas;
1738_PLC_P_04.1 for Soft Landscape Plan - 01/02;
1738_PLC_P_04.2 for Soft Landscape Plan - 02/02;
1738_PLC_P_05 for Removed/Retained/Compensatory Planting Plan;
1738_PLC_D_01 for Soft Landscape and SuDS | Details;
1738_PLC_TPP_01 for Hedgerow & Tree Protection Plan;
1738_PLC_TPP_01.1 for Hedgerow & Tree Protection Plan Zoom Area;
1738_PLC_ExViews_01 for Pre Development Photos and Location Map.

Methodology Employed

The drawings and documents contained in the planning application from 'The Tree File' and the tree survey dated November 2021 was uploaded into 'treeplotter' GIS and a database of all the existing trees on the subject site was created. On the 7th, 15th and 22nd October all of the trees were re-surveyed and accurately positioned on drawings numbered 1738_PLC_TPP_01. The GIS based system allows for the recording of all inspections over the course of the construction monitoring program.

The areas were also photographed on the survey date pre commencement of construction. A record of this is located on drawings 1738_PLC_ExViews_01.

The confirmed locations are on drawings 1738_PLC_TPP_01, and TPP_01.1 The tree schedule is contained in appendix 1 and hedgerow schedule is contained in appendix 2. The works are divided into two principal sections, namely tree protection during construction and tree/hedgerow management post construction.

3.0 Tree and Hedgerow management plan

3.1 Aims & objectives

Management of hedgerows aims to put in place the appropriate management operations to maximise the value of the site's hedgerows. The specific objectives are as follows:

- Mature hedgerows should be allowed to grow freely and naturally;
- New hedgerows should be managed to enable them to develop into;
- All plants to be maintained so that they remain in good health;
- All plants to have a habit and form consistent with species type and aesthetic objectives;
- Areas surrounding hedgerows are to be maintained in such a way that potential threats to hedgerow viability are addressed, e.g. weed control (particularly invasive weeds);
- Appropriate control of ivy;
- Enable recognition of site vegetation (including trees) at the end of its viable life is important to ensure that it is removed and replaced in a timely manner to avoid dangers to park users.
- Where Ash trees fail and are structurally unstable they should be made safe. Use shall be made of standing deadwood and where appropriate deadwood should be left to naturally decay back into the soil.
- Broadleaf replanting shall take place at the earliest opportunity using light standard trees utilising native tree species to establish a cover of trees in advance of the ultimate decline of the Ash.

3.2 Environmental considerations

Responsible and sustainable hedgerow management is about balancing the performance standards with the required standard of maintenance. The following principles have guided the development of the specification:

- Minimise use of non-renewable resources
    - e.g. reduce use of chemical inputs such as pesticides, utilise manual tools where possible and safe.
- Utilise low input systems
    - Includes measures such as: mulching instead of herbicide use, where possible.
- On-site green waste recycling / mulching / composting
    - Avoids excessive transportation and use of landfill.

- Use of environmentally friendly products where possible
  - e.g. biodegradable herbicides, biodegradable tree ties, timber stakes.
- Biodiversity & Nature Conservation
  - Project ecologist will be consulted for any replacement planting or operations that could disturb wildlife in order to comply with best practice; All works involving tree surgery or removal of trees / hedgerows will be carried out outside the nesting season (unless required for health and safety or is unavoidable).
- Pollinator-Friendly Management Practices
  - to encourage bee and insect populations by managing appropriately.
- Control of Invasive Species
  - It is an objective of this plan to control and prevent the spread of invasive species, in order to protect the biodiversity of the landscape. Note that a plan is in place to deal with Three-Cornered Leek, which was identified on Heronford Lane by Scott Cawley Ecologists.
- Protection of site resources
  - Appropriate maintenance will result in the protection of existing trees, hedgerow vegetation and soil resource of the site.

4.0 Post construction management operations

4.1 General

New and existing hedgerows will have different maintenance regimes until the new hedgerows become established. Following is general guidance for maintenance of hedgerows:

- Carry out hedgerow maintenance between September 1st and the last day of February to avoid the bird nesting season, in accordance with Wildlife Act.
- Prior to carrying out maintenance operations, the hedgerow should be inspected to identify trees and other wildlife features, as well as any obstacles or hazards that may be present.
- Retain old trees and standing dead trees within the hedgerow, where it is safe to do so. Dead standing trees should be pruned of side branches and ivy to minimise hazard to park users.
- Hedgerows should be cut once every three years.
- Consider carrying out maintenance in rotation, so that not all hedgerows are pruned at once. If possible, one side of a hedge should be trimmed in a season, and the other side in the following year.
- In cutting hedgerows, a triangular-shaped profile with bushy structure is preferred to encourage the development of a dense hedge with good wind resistance.
- Cut different hedges to different heights to vary the habitat value.
- Finger bar cutters with a pair of reciprocating blades should be used for trimming young growth.
- Flail cutters may be used on soft growth, and not on woody growth. If woody growth is inadvertently damaged, any ripped or ragged ends should be pruned back to the next branch junction.
- Where feasible, hedge trimmings should be piled in an agreed location on-site to provide habitat.
- Maintain 2m wide (minimum) buffer strips containing long grassland immediately adjacent to hedgerows, in accordance with Parks Biodiversity Plan.
- There is a large number of Ash within the hedgerows which will ultimately fai over the next 5-7 years. These should be replaced by a mix of broadleaf tree species including Oak, Lime, Birch and Hazel.

4.2 Specifications for Tree and Hedgerow Works

Works to hedgerows are to be carried out as per the following tables.

4.2.1 New Hedgerows – First three years

Criterion	Specifications
Aesthetic / functional requirements	Even, clean finish to ground plane. Hedge to have a healthy, lush appearance, typical for plant species and time of year. Relatively informal habit acceptable.
Weed Control	No weeds permitted in the hedge area. May be mulched or treated with an approved residual herbicide to provide year round weed control.
Bark Mulch	Recommended – 50mm deep; to be kept topped up at all times.
Fertiliser	Annual feeding with 50g/sq.m of general-purpose fertiliser in February. (Rake back mulch prior to application.)
Pruning	Pruning once per annum for the first three years to encourage development of bushy form; all clippings to be gathered at every pruning and disposed of in designated area.
Watering	Watering required only in periods of prolonged drought (i.e. after more than 2 weeks)

4.2.2 Mature Hedgerows

Criterion	Performance Standards
Aesthetic / functional requirements	Natural finish to ground plane. Hedge to have a healthy, lush appearance, typical for plant species and time of year. Informal habit acceptable.
Weed Control	Native weeds permitted in the hedge area as natural for the species. Noxious and invasive weeds to be treated appropriately.
Bark Mulch	Not required.
Fertiliser	None
Cutting	Cutting once every three years as necessary to maintain the required height and width, and prevent “leggy” growth; all clippings to be gathered at every cutting and disposed of in designated area for habitat.
Watering	Not required.

Results of management measures should be reviewed on a regular basis and adjusted as necessary in order to maintain the hedgerows in optimal condition. Only structurally essential works should be carried out to the existing trees.

BS5837:2012 Table 2 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012]* ***4.5.7****.*			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefit	Trees with no material conservation or other cultural value	

Appendix 1 – Tree Schedule

Tag no.	Latin Name	Common Name	Dbh [mm]	Ht [m]	Crown spread (m) (N)	(E)	(S)	(W)	Life Stage	Structural Condition		Cat.	RPA	Comments	Recommendations
1	Fraxinus excelsior	Common Ash	306	6	2.5	3	3	1.5	Semi-mature	Fair	Fair	C2	3.67	Suppressed and distorted, arising naturally from within hedgerow thicket. Is multi-stem from low level raising concerns regarding mechanical integrity.	Review regularly
	Fraxinus excelsior	Common Ash	223	7	1.5	2.5	2.5	1.5	Semi-mature	Fair	Fair	C2	2.68	Arising naturally from hedgerow thicket. Comprises element of natural regeneration.	
3	Fraxinus excelsior	Common Ash	261	7	2.5	3	2	2.5	Semi-mature	Fair	Fair	C2	3.13	Young and vigorous, arising from hedge thickets.	

4	Fraxinus excelsior	Common Ash	175	5	1	1	1.5	1	Semi-mature	Fair	Fair	C2	2.1	Bark damaged and naturally arising from waterlogged hedge thicket.
5	Fraxinus excelsior	Common Ash	185	5	1.5	2	1.5	1.5	Semi-mature	Fair	Good	C2	2.22	Young and vigorous arising from southern side of waterlogged ditch scenario
6	Fraxinus excelsior	Common Ash	379	7	2.5	3.5	3	3	Semi-mature	Poor	Fair	C2	4.55	A multi-stemmed group wholly enveloped with Ivy cover the prevents detailed visual review. Of poor-quality specimen arising from northern bank of flooded ditch.
7	Fraxinus excelsior	Common Ash	185	5	1	1.5	1	1	Semi-mature	Good	Fair	B2	2.22	Young and vigorous
8	Fraxinus excelsior	Common Ash	261	7	2	2.5	2	2	Semi-mature	Fair	Fair	C2	3.13	Young and vigorous arising from southern side of ditch.

9	Ulmus glabra	Wych Elm	185	5	1	1	2	1	Semi-mature	Poor	Dead	U	2.22	Completely dead, killed by Dutch Elm disease.	
10	Salix fragilis	Crack Willow	783	9	5	4	4.5	4	Mature	Poor	Poor	U	9.4	Multi-stemmed, decayed and splitting at 2.00 m. Offers no realistic sustainability.	
11	Salix caprea	Goat Willow	229	4	0	2	4	1.5	Early-mature	Fair	Fair	C2	2.75	Heavily unbalanced to south. Arises from area of boggy ground.	
12	Salix caprea	Goat Willow	341	4	2.5	4	4	3	Mature	Fair	Fair	C2	4.09	Arises from position close to the northern edge of ditch.	
13	Fraxinus excelsior	Common Ash	261	6	2	4	2.5	2.5	Semi-mature	Poor	Poor	U	3.13	Previously damaged and in a state of decline	Remove

14	Fraxinus excelsior	Common Ash	258	5	2.5	2	2	2.5	Semi-mature	Good	Fair	C2	3.1	Young and vigorous, arising naturally from within hedgerow thicket.	
15	Fraxinus excelsior	Common Ash	207	6	1.5	1	1	1.5	Semi-mature	Poor	Poor	U	2.48	Instate of chronic decline.	Remove.
16	Fraxinus excelsior	Common Ash	239	6	2	1.5	1.5	1	Semi-mature	Poor	Poor	U	2.87	Instate of chronic decline.	Remove.
17	Fraxinus excelsior	Common Ash	204	5	1.5	1.5	1.5	1	Semi-mature	Fair	Good	B2	2.45	Young and vigorous.	Review regularly.
22	Fraxinus excelsior	Common Ash	194	8	1	1.5	2	2.5	Semi-mature	Poor	Poor	U	2.33	In a state of ongoing decline.	Remove.
23	Ulmus glabra	Wych Elm	197	9	2	4.5	2	0	Semi-mature	Poor	Dead	U	2.36	Unbalance and dead.	Remove.

24	Fraxinus excelsior	Common Ash	325	7	1	4	3	3	Semi-mature	Poor	Fair	U	3.9	Triple stemmed but some stems have been cut. Unsuitable for retention.	Remove.
25	Fraxinus excelsior	Common Ash	290	7	3	3	2	3	Early-mature	Fair	Fair	B2	3.48	Young and vigorous, arising from western bank of ditch.	
26	Fraxinus excelsior	Common Ash	347	6	3	4.5	3	2	Semi-mature	Poor	Fair	U	4.16	Distorted suckering group arising from decaying stump of previous tree. Unsuitable for retention.	Remove.
27	Fraxinus excelsior	Common Ash	688	10	4	3.5	4	3	Early-mature	Fair	Fair	C2	8.26	Divided from low level. Arises from position close to confluence of ditches. Vigour and vitality are fair though crown support notable deadwood.	
28	Fraxinus excelsior	Common Ash	398	6	4	4	4	2.5	Early-mature	Poor	Poor	U	4.78	Squat, distorted and affected by Polyporus. Unsuitable for retention	Remove.

29	Fraxinus excelsior	Common Ash	274	5	3	2.5	2.5	2.5	Early-mature	Poor	Poor	U	3.29	A relic a once larger tree having suffered extensive collapse.	Remove.
30	Fraxinus excelsior	Common Ash	175	6	3	2.5	2.5	2.5	Semi-mature	Fair	Fair	B2	2.1	Young and vigorous, arising from hedgerow thicket.	
31	Fraxinus excelsior	Common Ash	306	5	2.5	1	2	2	Semi-mature	Fair	Fair	C2	3.67	Suppressed and distorted, arising from southern bank of substantial ditch.	
32	Fraxinus excelsior	Common Ash	229	6	4	2.5	2	4	Semi-mature	Fair	Fair	C2	2.75	Heavily distorted multi-stem from low level. A poor-quality specimen arising from southern bank of ditch.	
33	Fraxinus excelsior	Common Ash	401	6	4.5	3.5	2	1	Semi-mature	Fair	Poor	C2	4.81	Multi-stemmed and heavily cut in past. Is heavily distorted and ill-suited to retention.	

34	Tilia x europea	Common Lime	716	13	4.5	5	4.5	4.5	Early-mature	Fair	Good	C2	8.59	Large, particularly multi-stemmed specimen. Configurations suggests early life decapitation and subsequent re-suckering. Buttress region has been subject to erosion and root exposure. General vigour and vitality remain good.	Review regarding retention context.
35	Ulmus glabra	Wych Elm	357	13	4	3.5	2.5	3	Early-mature	Poor	Dead	U	4.28	Completely dead and in need of removal.	
36	Ulmus glabra	Wych Elm	229	7	1.5	2.5	2	2	Semi-mature	Poor	Dead	U	2.75	Completely dead and in need of removal.	Remove.
37	Ulmus glabra	Wych Elm	306	7	2	5	1	2	Semi-mature	Poor	Dead	U	3.67	Distorted and completely dead.	Remove.
38	Fraxinus excelsior	Common Ash	748	10	4	5	3.5	3	Early-mature	Poor	Poor	U	8.98	Once larger tree has been crudely decapitated	Remove.

													with current crown comprising sucker regeneration. Is unsuitable for retention.	
39	Ulmus glabra	Wych Elm	226	7	0	2	3	2	Semi-mature	Poor	Dead	U	2.71	Completely dead and in need of removal.	
40	Ulmus glabra	Wych Elm	751	9	3	3	2	3	Early-mature	Poor	Dead	U	9.01	Tree is completely dead and appears to have lost much of early crown.	
41	Acer pseudoplatanus	Sycamore	226	7	1	2.5	2	3	Semi-mature	Fair	Fair	C2	2.71	Distorted and suppressed but remains vigorous.	
42	Acer pseudoplatanus	Sycamore	220	8	1	2	3	3	Semi-mature	Fair	Fair	C2	2.64	Distorted and suppressed but remains vigorous.	
43	Fraxinus excelsior	Common Ash	283	10	2.5	4	3.5	3.5	Early-mature	Fair	Good	B2	3.4	Young and vigorous. Arises from on top of partial eroded ditch embankment.	Review regarding retention context.

44	Fraxinus excelsior	Common Ash	433	10	5	4.5	5	5	Early-mature	Fair	Fair	C2	5.2	Multi-stemmed and sprawling having developed spreading crown supported on heavily divided stem. Tree arises from eastern side of eroded ditch scenario.	Review regarding retention context.
45	Fraxinus excelsior	Common Ash	344	6	3	3.5	4	3	Semi-mature	Poor	Fair	U	4.13	Distorted and previously cut. Arises from demolition spoil is unlikely to prove retainable.	
46	Fraxinus excelsior	Common Ash	248	5	3	3	3	3	Semi-mature	Fair	Fair	B2	2.98	Young and still vigorous. Arises from position west of mounded spoil and demolition rubble.	Review regarding retention context.
47	Acer pseudoplatanus	Sycamore	369	7	1.5	2	3	3	Semi-mature	Poor	Fair	C2	4.43	Young and vigorous but arising from demolition rubble. Is unlikely to prove retainable.	

48	Fraxinus excelsior	Common Ash	302	5	3.5	3	1.5	4	Semi-mature	Poor	Fair	C2	3.62	Young and vigorous but arising from demolition rubble. Is unlikely to prove retainable.	
49	Fraxinus excelsior	Common Ash	229	5	2.5	2	1	2	Semi-mature	Poor	Poor	U	2.75	Young and vigorous but arising from demolition rubble. Is unlikely to prove retainable.	Remove.
50	Acer pseudoplatanus	Sycamore	398	8	3	2	2	2	Semi-mature	Poor	Poor	U	4.78	Comprises an element of sucker regeneration subsequent to prior cutting. Is unsuitable for retention.	Remove.
51	Ulmus glabra	Wych Elm	376	10	4	4	3.5	4	Early-mature	Poor	Dead	U	4.51	Remove immediately.	Remove.
52	Fraxinus excelsior	Common Ash	248	8	4	3	0	3	Semi-mature	Poor	Fair	U	2.98	In state of decline with substantial dieback noted.	Remove.

													Unsuitable for retention.	
53	Fraxinus excelsior	Common Ash	328	7	4	5.5	2	1	Semi-mature	Poor	Fair	C2	3.94	Heavily unbalanced to east, arising from western side of ditch but overhanging western bank.	Review regarding retention context.
54	Acer pseudoplatanus	Sycamore	325	5	0	5	2	1	Semi-mature	Poor	Fair	U	3.9	Heavily distorted with lower stem procurement and supported on derelict masonry.	Remove.
55	Ulmus glabra	Wych Elm	207	5	2.5	2	1.5	2.5	Semi-mature	Poor	Dead	U	2.48	Completely dead.	Remove.
56	Ulmus glabra	Wych Elm	398	7	3	3	3	3	Semi-mature	Poor	Dead	U	4.78	Completely dead, Dutch Elm disease.	Remove.
57	Fraxinus excelsior	Common Ash	229	5	1.5	3.5	2.5	0	Semi-mature	Poor	Fair	U	2.75	Heavily distorted, arising from western side of ditch. Is of particularly poor quality and is ill	Consider early removal.

													suited to retention.	
58	Fraxinus excelsior	Common Ash	306	8	3	2.5	1.5	2	Semi-mature	Poor	Fair	C2	3.67	Distorted a multi-stemmed, arising from western bank of dilapidated ditch.	
60	Fraxinus excelsior	Common Ash	271	7	3	2.5	2	2	Semi-mature	Poor	Fair	C2	3.25	Poor quality multi-stemmed.	Review regarding retention context.
62	Fraxinus excelsior	Common Ash	271	8	2	2.5	3	2.5	Semi-mature	Poor	Fair	U	3.25	Multi-stem from low level suggesting sucker regeneration from previous stump. Arises from eastern embankment of dilapidated ditch and particularly waterlogged area. Tree offers minimal sustainability.	

63	Fraxinus excelsior	Common Ash	255	8	4	3.5	3	4	Semi-mature	Poor	Fair	U	3.06	Multi-stem from low level suggesting sucker regeneration from previous stump. Arises from eastern embankment of dilapidated ditch and particularly waterlogged area. Tree offers minimal sustainability.	
64	Fraxinus excelsior	Common Ash	302	6	2.5	2.5	2.5	2.5	Semi-mature	Poor	Poor	U	3.62	Multi-stemmed comprising coppice like regeneration subsequent to prior cutting. Is of poor quality and offers minimal sustainability.	
65	Fraxinus excelsior	Common Ash	388	6	3	1.5	1.5	3	Semi-mature	Poor	Poor	U	4.66	Comprises sucker regeneration from a decayed coppice like base. Is Unsuitable for retention.	Remove.

66	Fraxinus excelsior	Common Ash	388	6	3.5	3.5	2.5	2	Semi-mature	Poor	Poor	U	4.66	Comprises sucker regeneration from a decayed coppice like base. Is Unsuitable for retention.	
67	Fraxinus excelsior	Common Ash	376	7	3.5	4	2	2	Semi-mature	Poor	Fair	C2	4.51	Has suffered substantial stem and crown damage to west. Tree arises from partial eroded embankment on western side of substantial di	
68	Fraxinus excelsior	Common Ash	341	6	3	3.5	2	1	Semi-mature	Poor	Fair	C2	4.09	Heavily unbalanced to east, arising from western side of partial eroded ditch embankment. Is of dubious sustainability	
69	Fraxinus excelsior	Common Ash	325	7	2.5	3	1.5	3	Semi-mature	Poor	Fair	C2	3.9	One-sided and arising from western side of ditch. Ground conditions eroded in vicinity of stem.	Review regularly.

70	Fraxinus excelsior	Common Ash	306	7	2.5	5	3	3.5	Semi-mature	Poor	Fair	C2	3.67	Heavily distorted and multi-stemmed, poor quality specimen arising from western side of eroded ditch. Is of questionable sustainability.
71	Fraxinus excelsior	Common Ash	322	7	2	4.5	4.5	4.5	Semi-mature	Poor	Fair	C2	3.86	Wholly one-sided and obscure by dense Ivy cover. Tree appears to offer minimal sustainability.
72	Fraxinus excelsior	Common Ash	360	7	4.5	4.5	3.5	3.5	Semi-mature	Poor	Fair	C2	4.32	Multi-stemmed and routing arising from eroded western bank of dilapidated ditch
73	Fraxinus excelsior	Common Ash	229	6	2.5	3	3	4.5	Semi-mature	Poor	Fair	C2	2.75	Twin stemmed from low level. A poor quality and suppressed specimen arising from dilapidated hedge line

74	Fraxinus excelsior	Common Ash	232	7	1.5	2.5	3	3	Semi-mature	Poor	Fair	C2	2.78	Distorted and arising from western side of dilapidated ditch. Tree offers limited sustainability.	
75	Fraxinus excelsior	Common Ash	398	10	4	3.5	3.5	3	Semi-mature	Poor	Fair	C2	4.78	Multi-stemmed from ground level raising questions regarding structural integrity. Tree group arises from disturbed western bank of dilapidated ditch	Review regarding retention context.
76	Fraxinus excelsior	Common Ash	185	5	1	1.5	1.5	1.5	Semi-mature	Poor	Fair	C2	2.22	A young whip arising from western side of dilapidated ditch and waterlogged area	Review regarding retention context.
77	Fraxinus excelsior	Common Ash	191	5	1.5	1.5	1.5	1.5	Semi-mature	Poor	Fair	C2	2.29	A young whip arising from western side of dilapidated ditch and waterlogged area	Review regarding retention context.

78	Fraxinus excelsior	Common Ash	188	5	1.5	1.5	1.5	1.5	Semi-mature	Poor	Fair	C2	2.26	A young whip arising from western side of dilapidated ditch and waterlogged area	Review regarding retention context.
79	Fraxinus excelsior	Common Ash	185	5	1.5	1.5	1.5	1.5	Semi-mature	Poor	Fair	C2	2.22	A young whip arising from western side of dilapidated ditch and waterlogged area	Review regarding retention context.
81	Fraxinus excelsior	Common Ash	341	7	4	2.5	2.5	2.5	Semi-mature	Poor	Fair	C2	4.09	Distorted and arising from northern edge of stream. Is of poor quality.	
82	Salix alba	White Willow	271	6	5	5	3	0	Semi-mature	Poor	Fair	C2	3.25	Arising to north of site boundary. Is heavily unbalanced to east.	Review regarding retention context.

82a	Salix fragilis	Crack Willow	668	12	7	7	5	6	Early-mature	Fair	Fair	C2	8.02	Large, multi-stemmed and disbursed group to create a singular crown form. Group is in state of ongoing dilapidation and involved stems both the north and south of the ditch and stream. There is much evidence of ongoing/prior failure and collapse.	Review with regard to retention context and management issues arising.
83	Fraxinus excelsior	Common Ash	344	7	4	2.5	4	4	Semi-mature	Poor	Fair	C2	4.13	Multi-stem from ground level. Naturally arising from rubble and spoil.	
84	Acer pseudoplatanus	Sycamore	334	7	4	3.5	3	1	Semi-mature	Fair	Fair	C2	4.01	Twin-stemmed group, heavily suppressed by proximity of near neighbour. Arises from demolition spoil.	

85	Acer pseudoplatanus	Sycamore	302	7	4	4	4	4	Semi-mature	Fair	Fair	B2	3.62	Young and vigorous, arising from dilapidated and demolished structures	Review regarding retention context.
86	Acer pseudoplatanus	Sycamore	360	9	5	4.5	4	4	Semi-mature	Fair	Fair	B2	4.32	Young and vigorous though supporting extensive Ivy cover.	Cut Ivy and rereview.
87	Acer pseudoplatanus	Sycamore	274	5	3	2	1.5	2	Semi-mature	Poor	Poor	U	3.29	Comprises sucker regeneration from stump of previous tree.	
88	Acer pseudoplatanus	Sycamore	844	13	6	5	6	6	Early-mature	Poor	Fair	C2	10.13	Apparently older specimen possibly decapitated in past. Lower stem is subject to ongoing fire damage extensive bark dieback and localise decay. Tree is not sustainable.	
89	Acer pseudoplatanus	Sycamore	261	6	4.5	3	1	2.5	Semi-mature	Poor	Fair	U	3.13	Strangle by wire and arising from demolition spoil. Ill-suited to retention.	

90	Acer pseudoplatanus	Sycamore	325	11	4	2	4	3	Early-mature	Poor	Fair	C2	3.9	Naturally arising from partially demolished masonry.	
91	Acer pseudoplatanus	Sycamore	306	11	3	2	2	1	Early-mature	Poor	Fair	C2	3.67	Naturally arising from partially demolished masonry.	
92	Ulmus glabra	Wych Elm	271	10	4.5	4	2	3	Semi-mature	Poor	Dead	U	3.25	Completely dead and in need of removal.	Remove.
93	Salix alba	White Willow	637	14	8	8	6	6	Early-mature	Poor	Fair	C2	7.64	Large sprawling's multi-stemmed group in a state of ongoing and progressive failure. Tree arises from position east of area of demolition rubble and apparent pond and. Suitability of retention would require substantial further review	

94	Acer pseudoplatanus	Sycamore	379	8	3.5	3	4	4	Semi-mature	Fair	Fair	B2	4.55	Young and vigorous but obscure by dense Ivy cover.	Cut Ivy and rereview.
95	Acer pseudoplatanus	Sycamore	401	13	5	4.5	5	5	Early-mature	Fair	Fair	C2	4.81	Quality is undermined by bark included fork though general vigour and vitality is good	Review regarding retention context.
96	Fraxinus excelsior	Common Ash	493	11	5	3	4	3.5	Early-mature	Poor	Fair	C2	5.92	Of variable condition with evidence of prior mid crown damage. Tree arises from hi embankment abovecanal levelling ditch.	Re-review.
97	Fraxinus excelsior	Common Ash	525	11	4.5	5	3.5	1.5	Early-mature	Poor	Fair	C2	6.3	Is heavily Ivy clad preventing detailed appraisal. Tree arises from hi embankment above canal levelling stream. Crown supports deadwood possibly indicative of	

													pathological issues	
98	Fraxinus excelsior	Common Ash	493	10	5	6.5	4	5	Early-mature	Poor	Fair	C2	5.92	Arises from embankment above levelling canal levelling ditch. General vigour and vitality appear good however, entire crown is wholly enveloped in Ivy cover preventing detailed review at this time.	Cut Ivy and rereview.
101	Acer pseudoplatanus	Sycamore	548	11	5	5	4	5	Mature	Fair	Fair	C2	6.58	Tree arises from lower-level adjoining canal balancing stream. General vigour and vitality are good, though much of crown is obscure by dense Ivy cover	

102	Ulmus glabra	Wych Elm	239	6	2	2.5	2	1	Semi-mature	Poor	Dead	U	2.87	Completely dead, killed by Dutch Elm disease.	Remove.
103	Ulmus glabra	Wych Elm	220	6	1.5	2.5	2.5	1	Semi-mature	Poor	Dead	U	2.64	Completely dead, killed by Dutch Elm disease.	Remove.
104	Ulmus glabra	Wych Elm	271	6	1	2	2.5	2.5	Semi-mature	Poor	Dead	U	3.25	Completely dead, killed by Dutch Elm disease.	Remove.
105	Fagus sylvatica	Common Beech	589	13	6.5	6.5	6.5	6.5	Early-mature	Fair	Good	B2	7.07	A relatively young but vigorous group, multi-stemmed from low level. Multiple stems combined to create a singular canopy form.	
106	Ulmus glabra	Wych Elm	337	6	4.5	5	5	3	Semi-mature	Poor	Dead	U	4.04	Completely dead, killed by Dutch Elm disease.	Remove.
106	Ulmus glabra	Wych Elm	337	12	4.5	5	5	3	Early-mature	Poor	Dead	U	4.04	Completely dead, killed by Dutch Elm disease.	Remove.

107	Fraxinus excelsior	Common Ash	274	9	3	4	3	2.5	Semi-mature	Poor	Fair	C2	3.29	Slightly unbalanced to east. Vigour is impaired with twiggy decline in evidence about higher crown	Review annually regarding Chalara canker
109	Fraxinus excelsior	Common Ash	229	7	2.5	2.5	2.5	2.5	Semi-mature	Fair	Good	B2	2.75	Slightly unbalanced to east. Vigour is impaired with twiggy decline in evidence about higher crown	Review annually regarding Chalara canker.
115	Fraxinus excelsior	Common Ash	269	11	3	3	3	2	Semi-mature	Poor	Poor	U	3.23	Exhibiting widespread evidence of higher crown decline. Appears ill-suited for retention	Remove.
116	Fraxinus excelsior	Common Ash	347	10	3	3.5	3.5	2.5	Semi-mature	Fair	Good	B2	4.16	Appears be keeping reasonable vigour and vitality but is adjoined by other Ash showing signs of decline.	re-review, summer 2022.

117	Fraxinus excelsior	Common Ash	239	10	2.5	2.5	2.5	2.5	Semi-mature	Fair	Good	B2	2.87	Currently shows no signs of decline but should be reviewed in summer 2022.	re-review, summer 2022.
118	Fraxinus excelsior	Common Ash	350	12	3	3	3	3	Semi-mature	Poor	Poor	U	4.2	Exhibiting classic signs of decline and deterioration associated with Chalara canker	Consider early removal.
119	Fraxinus excelsior	Common Ash	239	10	2.5	2.5	2.5	2.5	Semi-mature	Fair	Good	B2	2.87	Currently shows no signs of decline but should be reviewed in summer 2022.	
120	Ulmus glabra	Wych Elm	229	8	2	2	2	2	Semi-mature	Poor	Dead	U	2.75	Killed by Dutch Elm disease.	
121	Fraxinus excelsior	Common Ash	337	9	3.5	3.5	3.5	3.5	Semi-mature	Poor	Fair	C2	4.04	Twin stems adjoined to create singular crown form. Crown vigour and vitality is reduced suggesting possible onset of disease. Tree appears to offer	rereview summer 2022.

													limited sustainability	
122	Fraxinus excelsior	Common Ash	462	12	4	6	3	4	Early-mature	Poor	Fair	C2	5.54	Large multi-stemmed group heavily obscured by dense Ivy cover. Vigour and vitality are reduced suggesting possible onset of Ash decline.	rereview summer 2022.
1001	Fraxinus excelsior	Common Ash	250	10	3	3	5	5	Early-mature	Fair	Fair	C2	3	Ash dieback Multi stem 7	Review
1002	Fraxinus excelsior	Common Ash	550	15	4	4	4	4	Early-mature	Fair	Fair	C2	6.6		
1003	Fraxinus excelsior	Common Ash	550	15	4	4	4	5	Early-mature	Fair	Fair	C2	6.6		
WG1	Salix alba	White Willow	637	17	6	6.5	5	5	Mature	Poor	Fair	C2	7.64	A dispersed and multi-stemmed group arising over notable area adjoining balancing pond	

														to canal. Evidence suggests an original tree probably subject to a suckering and possible layering. Condition is highly variable with evidence of ongoing mechanical failure and limb loss suggesting sustainability will be context dependent. Notwithstanding this, group remains vigorous however much of crown is heavily obscured by dense Ivy growth.	
WG2	Salix alba	White Willow	637	16	7	6	3	2	Mature	Poor	Fair	C2	7.64	Multi-stemmed group slightly unbalanced to east. Group raises similar concerns as to	Review with regard retention context.

													those discussed in respect Willow group 1 inasmuch as crown and Entire tree will be subject to impromptu storm damage.
WG3	Salix alba	White Willow	525	16	12	5	5	7	Mature	Poor	Fair	C2	6.3	A multi-stemmed and disbursed group of poor quality with evidence of decline within upper crown. Group includes satellite gracious smaller previously cut satellite group to east.
WG3a	Salix alba	White Willow	525	10	2	2	2	2	Early-mature	Poor	Fair	C2	6.3	Appears to comprise sucker regeneration from the stump of a previous large tree.
WG4	Salix alba	White Willow	637	12	6	6	5	6	Early-mature	Poor	Fair	C2	7.64	Appears to be somewhat younger but is equally mechanically poor. Crown

													comprises heavily diverging stems with lower central portion not visible because of undergrowth. Concerns exist that tree has been subject to prior collapse.	
WG5	Salix alba	White Willow	748	15	7	6	6	5	Early-mature	Poor	Fair	C2	8.98	See general comments above.	Review regularly.
WG6	Salix alba	White Willow	796	15	6	8	6	5	Early-mature	Poor	Fair	C2	9.55	Multi-stemmed and already in a state of ongoing mechanical failure with recent loss of major limbs	Review regularly.
WG7	Salix alba	White Willow	462	12	4	5	5	3	Early-mature	Poor	Fair	C2	5.54	Multi-stem from ground level. Potentially is mechanically poor and may be subject to failure	Review regularly.

WG8	Salix alba	White Willow	637	16	10	12	6	5	Mature	Poor	Fair	C2	7.64	See general comments above.	Review regularly.

Appendix 2 – Hedgerow Schedule

No.	Common Name	Life Stage	Condition	Estimated Remaining Contribution	Quality Category	Comments
1a	Common ash, Common hawthorn, Dog rose, Elder, Wych elm	Mature	Mixed	Medium (20 to 40 years)	C2	Hedge has undergone substantial clearance of sprawling Bramble-based thicket, particularly to east of hedge. Hedge remains overgrown with many trees chronically enveloped with Ivy. Substantial number of original hawthorns remain but only at intermittent positions. The alignment supports a number of emergent ash and elm however many of the elms appear to be dead as result of Dutch Elm disease. Hedge is associated with substantial ditch and embankment feature. A majority of the thorn-based material arises from the eastern bank of the ditch however general scrub and thicket development to the west is noted but is variable. Area supports a number of sporadic sapling trees and Thorn elements.
1b	Blackthorn, Common hawthorn, Dog rose, Sycamore	Mature	Mixed	Short (10 to 20 years)	C2	A relic of prior hedge being substantially discontinuous. Recent clearance works of spurious Bramble thicket have left wholly denuded hedge line comprising a small number of relic Hawthorn together with some Elder and Sycamore. Hedge line arises from the southern bank of a substantial ditch.
1c	Blackthorn, Common hawthorn, Dog rose, Elder, Goat willow, Wych elm	Mature	Mixed	Short (10 to 20 years)	C2	The original hedge alignment arises from the north-eastern side of a substantial ditch alignment descending to circa 1.50 m below field levels and whilst much thicket development has occurred to the north-west, this shows no evidence of deliberate planting and typically comprises Bramble thicket with intermittent Thorn and Elder

						development. Continuity in the hedge is relatively poor with numerous gaps exceeding 20.00 m whereby the hedge profile is provided by low level Bramble dominated thicket only. This section of the hedge is noted to support circa 8 completely dead Wych Elm. These trees, as with elsewhere on the site, have been lost to Dutch Elm disease and are indicative of the disease's prevalence within the broader area. Note is made that whilst the general profile of the original hedge rarely exceeds 6.00 – 8.00 m, the broader thicket development to both the north-east and south-west often extends this profile by in excess of 20 m. Such material is however of poor quality and offers minimal potential for retention within a developed context.
1d	Common beech, Common hawthorn, Dog rose, Elder	Mature	Mixed	Short (10 to 20 years)	C2	Another dilapidated section of hedgerow supporting only a small number of original Hawthorn. Broader continuity is provided at lower levels by Bramble thicket and intermittent Elder. The alignment supports at least for completely dead Wych Elm, indicative of the prevalence of Dutch Elm disease within the broader area. Note is made that circa 60 m south of the northern end of this hedge, there is a substantial Beech. This tree is broadly accessible at this time however, its overall condition would appear good in respect of its general vigour and vitality. It will be advised this tree is reviewed in detail once access is available. As with the remainder of the "1" group hedges, or significant material associated with this hedge arises from the north-eastern edge of a substantial

						drainage ditch. However, note is made of extensive thicket development progressing in a south westerly direction from the ditch and typically comprising Hawthorne, Bramble and elder scrub. Whilst providing a significant block of vegetation, it is unlikely that this material could be retained into and new urban landscape.
1e	Blackthorn, Common ash, Elder	Mature	Mixed	Short (10 to 20 years)	C2	Effectively comprising a dense Bramble thicket supporting 2 emergent groups of elder. Offers minimal sustainability.
1f	Blackthorn, Common hawthorn, Elder	Mature	Mixed	Short (10 to 20 years)	C2	Appears to comprise an intermittent and highly variable thorn-based alignment close to palisade boundary. The south of this, there is an erratic and variable Bramble thicket with emergent and Thorn and Elder.
1g	Blackthorn, Common hawthorn, Elder, Goat willow, Gorse, Sycamore, Wych elm	Mature	Mixed	Short (10 to 20 years)	C2	Alignment comprises an almost continuous thorn-based alignment close to palisade rails boundary. The south of this, there is a mixed and variable population of scrub thicket including Goat Willow, Bramble and Sycamore. Review with regard to retention context.
2	Blackthorn, Common ash, Common hawthorn, Elder, Sycamore, Wych elm	Mature	Mixed	Short (10 to 20 years)	C2	A broadly continuous hedge alignment with only a singular centrally located gap. Continuity appears good however, it is best at the north-eastern end of the alignment and is reduced to the south-west where continuity is in part provided by Bramble thicket. The alignment supports a small number of typically small but dead Wych Elm, indicative of the prevalence of Dutch Elm disease within the broader area. The south-western portion of the hedge supports a small element of emergent Ash that appear young and vigorous and thus are likely to assert immense potential for growth over time. The alignment arises wholly

						from the north-western upper edge of a substantial ditch profile.
3a	Blackthorn, Common ash, Common hawthorn, Dog rose, Elder, Sycamore	Mature	Mixed	Short (10 to 20 years)	C2	Exhibiting evidence of once having comprised a typical Hawthorne based agricultural field boundary. The alignment it still retains a substantial proportion of the hawthorns however, these are becoming outcompeted by more invasive species including elder, Blackthorn and Ash. The bulk of the mature material arises from the western side of substantial ditch profile however the vegetative profile is substantially exaggerated, particularly to the East by extensive secondary thicket development typically dominated by Bramble and elder and Blackthorn. This alignment supports several completely dead Elm, most notable towards the centre of the line with some having already collapsed. Note is also made of substantial contribution to the profile played by emergent Ash. Was most of these trees tend to be drawn up, distorted or multistemmed, most appear to be maintaining good vigour and vitality at this time and accordingly would appear to offer some degree of sustainability. Nonetheless and regarding larger trees, it would be advised that once access is improved by way of scrub eradication that any such trees intended for retention would be reviewed on an individual basis.
3b	Blackthorn, Common ash, Common hawthorn, Dog rose, Elder, Sycamore	Mature	Mixed	Short (10 to 20 years)	C2	This element of hedging effectively comprises an extension to hedge 3a continuing up and to the southern boundary hedge of the site area. In many respects, it mimics hedge 3a however, the proportion of Hawthorne remaining in this area is diminished with it greater degree of apparent

						suppression and competition from broader thicket development. In such instances, the eradication of the broader thicket would leave little of the original hedge structure. As with previous comments. The significant material associated with this thicket arises from the western edge of a substantial ditch notwithstanding the fact that there has been substantial scrub development typically dominated by Bramble thicket, to both sides of the original alignment.
3c	Blackthorn, Common ash, Common hawthorn, Elder	Mature	Mixed	Short (10 to 20 years)	C2	Exhibits evidence to suggest once having comprised a Hawthorne hedge however, at this time it comprises more a broad swathe of regenerative vegetation in association with demolition spoil rubble and masonry. The material is of small stature, poor quality and offers minimal potential for retention.
4	Blackthorn, Common ash, Common hawthorn, Crack willow, Dog rose, Elder, Goat willow, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	A sprawling and dilapidated hedge of highly variable condition. The hedge appears to be based on the upper northern edge of a substantial ditch alignment however, to further complicate issues, surrounding vegetation is highly suggestive of particularly poor drainage and potentially waterlogged conditions. The condition of the hedge is highly variable not only supporting several dead Elms, presumed have been killed by Dutch Elm disease but also other species exhibiting classic signs of decline are possibly attributable to periodic waterlogging. The originally intended Hawthorne element of the hedgerow is now quite vestigial with the broader hedge profile been provided by a combination thicket, often dominated by Blackthorn, Bramble, and Ivy with intermittent emergent Ash. As with previously

						described hedges, note is made of the substantial expansion of the original hedge profile by continuous thicket development to the north and south of the primary alignment.
5a	Blackthorn, Common ash, Elder, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	A particularly dilapidated and disjointed hedge alignment apparently arising from the southern side of a now heavily eroded and dilapidated ditch. The hedge lacks continuity and retains only a small number of the original Hawthorn.
5b	Blackthorn, Dog rose, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	A broadly continuous element of hedge notwithstanding suppression and competition at lower levels. In this instance, the primary Hawthorne remains dominant but early signs of competition exist with substantial thicket development to both the south-east and north-west of the primary alignment. Note is made that the primary alignment appears to be rooted on the upper edge of the north-western side of a substantial ditch feature. Though small in numbers, this hedge section supports some Wych Elm, the majority of these are dead however one was encountered that remains alive however this specimen is already exhibiting symptoms of the disease and thus is unlikely to survive beyond the immediate shortterm.
5c	Blackthorn, Elder, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	As with 5B excepting that all Elms are dead.
6	Blackthorn, Common ash, Elder, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	Widely dilapidated section of hedge that whilst still supporting a small number of the original Hawthorns is now more an alignment of mixed species, often dominated by Blackthorn and Bramble. Many specimens in this area exhibit evidence of decline a factor that may be related to localised changes in ground flora that suggest wetter ground conditions and possible periodic

						flooding. This section of hedge is considered such as to provide particularly minimal potential for retention.
6b	Blackthorn, Common ash, Common hawthorn, Elder, Goat willow, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	A wholly dilapidated element of hedge that whilst illustrating elements of prior Hawthorne hedge is now wholly intermittent and discontinuous. With reference to the southernmost end of the hedge, ground flora suggests a particularly wet conditions including dominance by reeds and sedges. This is likely to be the cause of some of the decline noted within the hedge. Note is however made that the hedge supports several Elms apparently lost to Dutch Elm disease. The southern end of the hedge supports several young Ash. Many of these trees remain vigorous at present however, such specimen should be reviewed considering environmental changes including drainage as may occur in this area through development. Other than the ash, this section of hedging offers little potential for retention.
7	Blackthorn, Common ash, Common hawthorn, Elder	Mature	Poor	Short (10 to 20 years)	C2	A broadly variable hedge alignment where Hawthorne still retains a substantial proportion of the overall population however, it is now often suppressed and has lost its dominance. The broader alignment now comprises a more thicket like and mixed profile including a notable population of emergent ash. The original and dominant vegetation arises from the northern side of a substantial ditch profile. This vegetation is added to both the north and south of the original profile and ditch by spurious thicket development, typically dominated by goat willow and Bramble. The alignment remains strong and except for a small

						number of specific punctuations is broadly continuous. Eradication of invasive species appears likely to allow for the retention of a still broadly contiguous alignment. Note is made that several Elms located at the north-western end of the alignment are already in poor condition with all exhibiting evidence of early Dutch Elm disease attack. Accordingly, such material is considered unsustainable. Though none of the emergent Ash from this alignment have been deliberately planted, a clear majority appear to be in broadly good condition and might offer some degree of sustainability. This is particularly the case in respect of 7b where in comparison to 7a, the Ash becomes progressively more and more dominant in respect of the broader alignment.
8	Blackthorn, Common ash, Common hawthorn, Common hazel, Elder, Pedunculate oak, Sycamore	Mature	Poor	Short (10 to 20 years)	C2	This alignment differs greatly from previous alignments in that it supports and obviously more mature tree population. The underlying Hawthorn hedge appears quite like others noted elsewhere upon the site and will be typical of agricultural field boundaries. The hedge as with all significant vegetation in this area is located arising from the eastern side of a substantial drainage ditch, descending to circa 1.50 metres below field levels. The Hawthorn is becoming recessive with continuity within the lowerlevel hedge being provided more by a combination of species as opposed to a true Hawthorne alignment. In this respect, there are substantial variability with some elements of the hedge comprising little more than Bramble and elder thicket. The biggest difference in this instance relates the tree

						population including a number of significant Ash, Sycamore and, towards the north-western end of the alignment, and Oak. The age profile of these trees is significantly different from any others noted elsewhere on the site (exempting Beech at northern end of hedge 1d) thus suggesting a different context and history. The paragraph the trees vary greatly in condition. The larger Sycamore exhibits classic signs of decline and stag heading as do adjoining trees including some ash towards the centre of the alignment. Other tree is a pity maintaining reasonable vigour and vitality. The underlying hedge profile is of questionable suitability for attention in light of its variability and the fact that the eradication of invasive scrub thicket species would greatly undermine any degree of continuity. Similar comment would apply to the trees however, proportion of the trees would appear suitable for retention.
9	Common ash, Common hawthorn, Elder, Spindle, Sycamore	Mature	Poor	Short (10 to 20 years)	C2	A broadly continuous hedge alignment where dominant vegetation appears to arise from the south-eastern side of significant field hedge however, there is additional evidence to suggest possible planted population to the north-west of the same ditch. The Hawthorn element of the population remains significant though is beginning to lose dominance particularly with the development of emergent ash. Thicket development tends to be somewhat limited suggesting that the eradication of more invasive species may still allow for the retention of significant hedge alignment. Note is made that the alignment supports several elms, all dead because of Dutch Elm

						disease. Is also supports several young Ash and Sycamore that appear to be of good general health.
27	Blackthorn, Common ash, Common hawthorn, Dog rose, Elder, Spindle, Sycamore	Mature	Poor	Short (10 to 20 years)	C2	A broad, sprawling, and ill-defined alignment that may or may not have been a hedge profile. There is a shallow but substantially eroded potential ditch alignment that appears to follow the online however, this is at best ill-defined by vegetation. The vegetation associated with the area is particularly poor with very few original Hawthorn is and the vegetation at best being sporadic and displaced from any alignment centre. The quality material is poor with several Elms already either dead or dying because of Dutch Elm disease. The remainder of the material is particularly spurious dominated by intermittent elder and thus is considered unsuitable for retention.
28	Blackthorn, Common ash, Common hawthorn, Dog rose, Elder, Spindle, Sycamore	Mature	Poor	Short (10 to 20 years)	C2	A highly variable hedge profile defined by a reduced number of large mature Hawthorn. While these remain dominant within the line they are not contiguous or continuous. At lower levels, the hedge profile continuity is best preserved by Bramble and Blackthorn thickets. The overall Hawthorn population where it exists, remains a reasonably good health notwithstanding suppression at lower levels. The original profile is contributed to by substantial thicket development was typically dominated by Blackthorn and Bramble. The alignment supports several emergent trees including Ash, Sycamore and Elm. All Elm is either dead or approaching death and thus cannot be retained. Towards the middle of the alignment, the ash of particularly poor condition suggesting notable

						sustainability issues. Note is however made that as one progresses to the south-west, the emergent tree population appears to become better and thus the degree of sustainability at that position may be improved. Note should be made that any curtailment of low-level scrub thicket on either side of the hedge will have a substantial effect on hedge continuity and cover levels.
29a	Blackthorn, Common ash, Common hawthorn, Elder, Sycamore, Wych elm	Mature	Poor	Short (10 to 20 years)	C2	A broadly continuous thicket-affect however, the underlying hedge is of highly variable quality with only a small proportion of the original Hawthorn hedge remaining. Much of the hedge has been suppressed by an emergent ash and Elm population however, the elms, because of Dutch Elm disease are now dead. At lower levels, widespread thicket development dominated by Bramble and Blackthorn has caused equal suppression. Any curtailment in spread by reducing the spurious thicket development will have a massive effect on hedge continuity and would quickly isolate what is only a small number of remaining Hawthorne's. Accordingly, the suitability of retaining this alignment is considered dubious at best.
T59	Common ash, Wych elm	Semi-mature	Fair	Medium (20 to 40 years)	C2	A combined a close-knit group arising from particularly boggy and flooded ground. Elm is completely dead and Ash as a poor quality offering no realistic sustainability.
T61	Ash species	Semi-mature	Fair	Very Short (<10 years)	U	Close-knit group of poor-quality specimens arising from waterlogged ground on edge of dilapidated ditch. Trees offer minimal sustainability.Consider early removal.

TL1	Common ash, Sycamore, Wych elm	Early-mature	Fair	Medium (20 to 40 years)	C2	A broadly continuous line and dominated by Ash arising from the southern side of dilapidated and eroded field ditch. A small number of trees arise from the southern side of the ditch (site side) this is a particularly small proportion of the overall population. All Elms reviewed exhibit evidence of Dutch Elm disease and offers no realistic sustainability Even where individuals remain alive. Similar concerns relate to the ash and relate in respect of the risks of Chalara canker attack. Accordingly it must be appreciated that these trees could readily be lost over coming years. Additionally, consideration should be given to the nature and form of the tree line. All trees, particularly the older specimens are multi-stem suggesting early life intervention and attempted cutting. Such multi-stemmed formats are mechanically weaker than single stem trees with evidence existing throughout the line of ongoing mechanical failure, stem splitting and limb loss. Notwithstanding the pathological issues mentioned above, combining this with mechanical issues then these trees should be regarded as suitable for limited retention and that retention will be dependent

						upon the context within which they would be retained. If retained, it is advised that the limited sustainability be addressed by new planting and augmenting the existing population thereby accounting for natural loss as well as safety management required loss over time.
WT1	Blackthorn, Common ash, Common hawthorn, Sycamore, Wych elm	Early-mature	Fair	Medium (20 to 40 years)	C2	A dense and highly variable thicket like development with no evidence of planting regime or pattern. Area supports numerous semimature trees including ash Sycamore and Elm however, most of the Elms encountered were dead as result of Dutch Elm disease. The area is subject to substantial ponding and waterlogging throughout and suitability for retaining material will be subject to long term management intentions. Consideration should also be given to the proportion of the population comprising ash as this may offer limited sustainability in light of Chalara canker issues.
WT2	Common ash, Elder	Early-mature	Fair	Medium (20 to 40 years)	C2	Group 3, Ash, Bramble, Ivy, Elder, and intermittent and variable group of ash that appeared to be associated with a now partially filled and dilapidated hedge with evidence of widespread earthworks and ground disturbance. The entries a multistemmed raising some concern with regard to sustainability and

						mechanical integrity however most currently appear to be of reasonably good health. Notwithstanding this, due consideration must be given to the potential for issues arising from Chalara canker the possibility that any or all of these trees could be lost to the disease in the near future.
WT3	Common ash, Elder, Goat willow, Sycamore	Early-mature	Fair	Medium (20 to 40 years)	C2	An area comprising natural regeneration. There is much competition and suppression across this generally continuous and thicket like area. Young Elm are subject to Dutch Elm disease and concern revolves about the sustainability of the Ash in light of Chalara canker.

Disclaimers

This report is intended solely for the benefit of the parties to whom it is addressed, and no responsibility is extended to any third party for the whole or any part of its contents. The conclusions and recommendations in this report are only valid for a period of one year. This period of validity may be reduced in the case of any change in conditions to or in proximity to the tree. In the event of adverse weather conditions, there is the possibility of any tree despite good report surveys, falling over.

In the event of a falling tree causing damage to residential or non-residential buildings in their proximity, no liability will attach to this firm, in the event of damage by such trees, to any person, any building public or private, or any mechanical vehicle or otherwise. Recommendations made in this report are subject to the knowledge and expertise of the qualified Arborist that carried out the above inspections.

Signed John Ward

Dated: November 2022
John Ward

ISA Certified Arborist