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Project: Title: AIRTON ROAD SHD Stage 3

Report Title: Arboricultural Tree Survey Report

Client(s): GREENLEAF HOMES LIMITED

Dated: 30-05-19

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1. Introduction:

We have been commissioned by McGill Planning Limited to carry out this Arboricultural Tree Survey Report on behalf of their client GREENLEAF HOMES LIMITED on lands at Airton Road, Tallaght, Dublin 24. The Tree Survey Report and associated drawings are part of the EIAR required for a proposed residential application for the site.

2. Methodology

We carried out the Tree Survey on 28th. May 2019. The Tree and Hedgerow survey was carried out to the ISA's *Best Management Practices – Level 1* or *Level 2 Assessment* and the *BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations.* The trees have been identified and described in the Tree Survey Schedule outlined below. Measurements relating to height, girth diameter, and crown spread have been taken and the general condition of the trees have been assessed and described. Finally, preliminary management recommendations have been prescribed. For Tree and hedgerow locations refer to *Tree Survey drawing Ref: 19.05.14.01A.* The Survey has been carried out without reference to any development proposals for the site.

3. Scope of the Work

Our brief was to carry out a Tree Survey on lands known at the former Gallaher's Site at the junction of Airton Road and Greenhills Road, Tallaght, Dublin 24 and on public lands between the site and Airton Road and a row of Poplar trees (Level 1 assessment) immediately outside the southwestern boundary of the site.

4. Summary of Tree Survey:

- 4.1 The site is currently derelict and there is a low density of trees within the application site area.
- 4.2 The tree species surveyed comprise of naturally-seeded *Fraxinus excelsior* (Ash), *Populus spp*. (Poplar) and *Betula pendula* (Birch)) and planted middle-aged to mature *Sorbus aria* (Whitebeam), *Prunus spp*. (Cherry and Plum) and other minor species. The trees vary in age and range from young (<15 years) to mature (>50 years).
- 4.3 The trees are generally in fair to poor condition with little or no arboricultural or sylvicultural management practices carried out in the past.
- 4.4 The derelict site is being colonized with pioneer scrub species of Birch, Buddleia and Ash. There are signs of Poplar shoot growth originating from surface roots that have possibly encroached into the site. The Poplar roots and emerging shoots are causing damage to the tarmacadam surfacing in areas around the site, particularly to the rear of the main building. It is likely that roots are originating from the line of Poplar trees around the southeastern boundary. As Poplar roots are destructive and can cause damage to buildings, roads, and underground services, it will be important as part of any development proposals for the site, that a root control programme be implemented to prevent the encroachment of roots into the site. A tree root control programme may include the installation of a root barrier membrane where required.
- 4.5 The *Populus spp*. (Poplar) trees in the southwestern corner of the site are generally in fair condition. The trees have a vigourous growth habit and the trees are in excess of twenty-two metres tall. The close planting spacing (1-2m) is causing restricted and suppressed tree crowns as trees compete for light and growing space. Heavy ivy growth is attached to their main stems which restricted and limited our assessments.
- 4.6 The hedgerow (H1) along the eastern boundary of the site is in good condition and comprises of native hedgerow indigenous species of *Crataegus monogyna* (Whitethorn), *Prunus spinosa* (Blackthorn), *Corylus avellana* (Hazel), *Rosa spp.* (Rosa) and *Fraxinus excelsior* (Ash). The hedgerows will require ongoing trimming to curtail height and lateral spread.
- 4.7 There is an attractive row of middle-aged Maple and Sycamore (Tree ref. A-S) planted on public lands on the narrow grass margin between the footpath and Airton Road. These trees are generally in good condition with the exception of three tree refs. (F, K, M) which are showing symptoms of decline. The roadside trees

have benefitted from limited tree works in the past, comprising mainly of crown-raising and pruning of overhanging limbs.

5. Proposed Tree Works:

Refer to the Programme of works outlined in the Tree Survey schedule below. Preliminary tree works recommended includes the felling of a small number of trees in poor condition, removal of the Poplar shoots and associated treatment of stumps, crown cleaning, deadwood removal and pruning and reshaping. The works as detailed in the Tree Schedule below shall only be carried out by a competent, professional and fully insured and certified Tree Surgery firm. The Contracting firm shall adhere to the Safety, Health and Welfare at Work Act 2005 and other relevant safety legislation.

During any felling works, care shall be taken to protect surrounding healthy trees, buildings, other structures and private property. Strict safety precautions shall be put in place to safeguard site occupants, road users, members of the general public, property and vehicles. If possible, felling work should not be carried out during the bird-nesting season. Trees shall be checked for bat roosting areas prior to commencement of work. While tree felling and remedial works are being carried out, appropriate measures should be put in place to prevent access from unauthorised persons to the work sites. All trees that are to be retained shall be managed in the interests of safety and to best arboricultural and sylvicultural standards and practices. <u>No works shall be carried out on trees that are not in ownership, outside the application area without owner's consent.</u>

<u>Note</u>: It should also be noted that trees surveyed may have wire and metal objects attached or embedded. Wire and other embedded materials can damage trees and can cause injury/death to persons engaged in the pruning, cutting, felling or related activities of affected trees. Damage to machinery can also occur.

Timeframe for re-inspection: Trees are not static objects, but growing, living organisms; and their condition, size, and relationship to buildings or other trees can change significantly and sometimes unpredictably within a relatively short period of time. The maximum interval of time for which this report and its findings remain valid shall be no more than twelve months from the date the Survey was carried out. Regular and ongoing assessments shall be carried out at least annually, or after major storms or other exceptional events on the tree site. Re-assessments shall be at the request of the Tree Owner.

Assumptions and Limitations

Any tree, whether it has visible weaknesses or not, will fail if the force applied exceed the strength of the tree or its parts. Only those trees specified in the scope of work were assessed and assessments were performed within the limitations specified. This tree assessment was carried out from the ground as a visual survey. To counter this limitation, it is vital that during Tree Works or Aerial Inspections, any additional defects found by the climbing Tree Surgeon be communicated to the Consulting Arborist to allow appropriate action to be taken. Our tree risk assessments represent the condition of the trees at the time of inspection. Our basal assessments were impeded and limited due to heavy ivy and basal sucker growth, scrub and ground vegetation. Our tree risk assessments consider known targets and visible or detectable tree conditions. No invasive or destructive evaluation techniques were used and all findings are based on the knowledge and expertise of the undersigned – a qualified Arborist. Trees are living organisms that are subject to the stresses of climatic extremes and attack from decay fungi and injurious diseases. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in question may not arise in the future. By examining the trees, rating their likelihood of causing damage and injury and recommending action to abate the hazard, we act to reduce but not eliminate the risks associated with trees. We have been authorized to carry out this report with the full permission and consent of Greenleaf Homes Limited.

Larry Phelan M.S.I.F. Certified Arborist, Dip EIA Mgmt. Dip in Science (Forestry)

Larry Phelan is a Professional Forester and Certified Arborist. He has over 35 years' experience in a broad range of treerelated matters including Forestry, Arboriculture, Landscaping and related activities. He trained and worked for the semistate Forestry Company – Coillte Teoranta for over 30 years in a number of forestry-disciplines including Tree Services, Private Afforestation and Private Timber procurement.

He is a Professional Member and Certified Arborist with The International Society of Arboriculture (ISA), Technical Member of the Society of Irish Foresters (MSIF) and an Approved Forester including Native Woodlands with the Forest Service, Department of Agriculture Food and The Marine.

Explanation of terms – Tree Survey Schedule

Tree No.:	The tag number used to identify the tree.
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Species: The genus and species for each tree is given.

Ht.: The approximate tree height to the nearest .5/m. is given.

Stem diameter: This is the trunk diameter measured at a height of 1.5 m above ground level.

Branch Spread: This is the measurement taken from the base of the tree to the outer tip of the lateral branches. It records branch spread. This is an average radial reading as most tree canopies are generally not symmetrical.

Age: The approximate age of the tree

Physiological Condition:Tree condition is based on a 3-tier rating system, and constitutes a general
assessment of the physiological condition of the tree where a rating of
Good = represents good health and vigour
Fair = Healthy and reasonable vigour
Poor = Showing signs of decline, disease or decay.

General Observations: Comments or initial suggestions of remedial works recommended at this point in time

Preliminary Management recommendation: Comments or initial suggestions of remedial works recommended at this point in time

Retention Category: BS 5837: 2012 determines four retention categories following assessment

(1) Trees whose retention is most desirable: *Category A* Those of high quality and in such condition to make a substantial contribution.

(2) Trees whose retention is desirable: *Category B* Those of moderate quality and value so as to make a significant contribution.

(3) Trees which could be retained; *Category C* Those of low quality and value, but can make a contribution until new planting is established.

(4) Trees for removal: *Category U* Trees that should be removed for reasons of sound arboricultural management.

Estimated Remaining Contribution (In years): (<10, 10+, 20+, 40+): An estimate of years remaining in the life expectancy of the tree.

E - denotes estimated reading (restricted access).

NAR - No action required at this point in time.

AVG. - The average girth recorded where there is more than one main stem.

Cavity: open or closed hollow within a tree stem, usually associated with decay.

Codominant stem: Forked stems or branches nearly the same size in diameter, arising from a common junction and lacking a normal branch union.

Crown: upper part of a tree, measured from the lowest branch, including all the branches and foliage.

Crown cleaning: In pruning, the selective removal of dead, dying, diseased and broken branches from the tree crown.

Crown raising: In pruning, the selective removal of lower limbs from a tree crown to provide clearance.

Crown reduction: Method of reducing the height and/or spread of a tree crown by making appropriate pruning cuts.

Crown thinning: In pruning, the selective removal of live branches to reduce crown density. The percentage of crown thinning stated are for guideline purposes only. The climbing Tree Surgeon to ultimately decide the amount of limbs to be removed following his inspection of the crown.

Deadwooding: removing dead and dying branches from a tree.

Decay: an area of wood that is undergoing decomposition

Decline: gradually diminishing health or condition of a tree.

Dieback: condition in which the branches in the tree crown die from the tips towards the centre.

Failure: Breakage of stem, branch or roots, or loss of mechanical support in the root system.

Hangar: Broken branch hung up in the tree crown.

Lean: Angle of the trunk

Level 1 Assessment consists of a visual assessment of an individual tree or a population of trees near specified targets, conducted from a specified perspective in order to identify certain obvious defects or specified conditions. A limited visual assessment typically focuses on identifying trees with *imminent* and/or *probable* likelihood of failure.

Level 2 Assessment consists of a detailed visual examination of the tree and its surrounding site and a synthesis of the information collected. It requires walking around each tree looking at the site, buttress roots, trunk, crown and branches and noting any defects, outward signs of possible internal defects and response growth. Data is then analysed and mitigation measures (tree works) are derived.

Pruning: Removing branches from a tree using approved practises, to achieve a desired objective.

Root rot: Decay located in the tree roots. Root decay is usually developed from the bottom up, and crown symptoms may or may not be visible.

Scope of work: The defined project objectives and requirements

Sucker growth: Shoots arising from the roots close to base of tree.

Stem: woody structure bearing foliage and buds.

Target: Person, object, or structure that could be harmed (damaged or injured) by a tree or tree part in the event of failure.

TREE SURVEY SCHEDULE

Tree No.	Species Common Name See Appendix 3 for Scientific Name	Ht. Ms. m.	Stem Diameter cms	Branch Spread m.	Age Y - Young M - Middle-aged MA - Mature OM - Over-mature V - Veteran	Physiological Condition	General Observations	Preliminary Management Recommendations	Estimated remaining contribution in years	Retention Category A- High B- Moderate C- Low U- Fell
861	Whitebeam	7.0	26	2N 1S 2E 0W	MA	Good.	Growing in island shrub bed. Forked at 1.5m. Minor scaring along stems - south side.	NAR	>40	A
862	Whitebeam	7.0	23	2N 1S 0E 2W	MA	Good.	Forked at 1m. Metal object attached in crown.	Remove metal object in crown.	>40	A
863	Whitebeam	9.0	24	2N 0S 1E 2W	MA	Good.	Growing in shrub bed close to building. Suppressed on southern side. Forked at 1.5m.	Lightly prune back limbs on north side to improve balance and shape.	>40	А
864	Norway Maple	8.0	14	1N 0S 1E 1W	М	Fair.	Growing in shrub bed close to building. Suppressed on southern side. Crooked stem.	Lightly prune back limbs on north side to improve balance and shape. Remove dead stems.	>40	В
865	Whitebeam	9.0	27	2N OS 2E OW	MA	Good.	Growing in shrub bed close to building. Suppressed on southern side. Forked at 1.5m. Unbalanced crown.	Lightly prune back limbs on north side to improve balance and shape. Sever light ivy growth at base.	>40	A
866	Cherry	7.0	14-Avg.	1N 1S 2E 1W	MA	Fair.	Early signs of decline. Forked from .5m. Lacks vigour.	Remove all minor dead stems.	>40	В
867	Cherry	5.0	30	2N 2S 1E 3W	MA	Poor.	Straight stem to 1.5m. Low leaf area. Epicormic shoot growth on east side.	Remove epicormic shoot growth. Prune to invigorate new growth.	>40	C
868	Poplar X 4 stems	9.0	15,13 7,6	1N 1S 1E 1W	M	Fair.	Derived from sucker growth. Close to kerb. Not for long-term retention.	Fell and treat resultants stumps.	>40	U

869	Myrobalan Plum	9.0	15,10 9	2N 0S 2E 0W	MA	Fair.	Heavy ivy growth attached. Multiple stems. Early signs of decline.	Sever ivy growth and prune to invigorate new growth. Remove any dead stems.	20-40	В
870	Myrobalan Plum	10.0	38	2N 2S 1E 2W	MA	Fair.	Heavy ivy growth attached. Forked from 1m. Multiple stems. Early signs of decline.	Sever ivy growth and prune to invigorate new growth. Remove any dead stems.	20-40	В
871	Weeping birch	3.0	19	0N 1S 4E 0W	MA	Fair.	Slightly suppressed. Unbalanced crown.	Requires pruning to reshape crown. Retain pendulous habit.	20-40	В
872	Weeping willow	10.0	55	4N 1S 0E 4W	MA	Good.	Leaning to west. Dead stems in crown. Heavy ivy growth to tip.	Remove all dead stems. Sever ivy growth at base. Remove broken stems west side.	>40	A
873	Poplar	10.0	22	.5N .5S .5E .5W	М	Good.	Derived from sucker growth. Close to fence. Not for long-term retention. Vigourous growth habit.	Consider removing tree.	>40	С
874	Poplar - Group of stem suckers	7.0- Avg.	12-Avg	-N -S -E -W	Y	Fair.	Group of poplar suckers. Multiple stems. Vigourous growth habit. Potential to cause structural damage to pavement.	Fell and treat resultants stumps.		U
875	Birch	11.0	11	1N 0S 1E 1W	М	Good.	Close to building. Not for long-term retention.	NAR. Consider removing tree. Remove minor stem on east side at 1.5m.	>40	С
876	Birch	7.0	8	1N .5S .5E .5W	Y	Good.	Self-seeded tree. Growing close to fence. Straight stem.	NAR	>40	В
877	Birch	5.0	6	.5N .5S .5E 0W	Y	Good.	Self-seeded tree. Growing close to fence.	NAR	>40	В
878	Ash	4.0	7	.5N .5S 1E .5W	Y	Good.	Self-seeded tree. Crooked stem. Growing close to fence.	NAR	>40	В
879	Poplar	7.0	15	1N 1S 1E 1W	М	Good.	Derived from sucker growth and surface roots. Roots causing pavement lift.	Fell and treat resultant stump.	20-40	U

880	Poplar	6.0	13	.5N 1S .5E	М	Good.	Derived from sucker growth and surface roots. Roots causing pavement lift. Vigourous growth	Fell and treat resultant stump.	20-40	U
881	Poplar X 5 stems	7.0	3,4 8,8 11	1W N S E W	Y	Fair.	habit. Close to fence. Derived from sucker growth and surface roots. Roots causing pavement lift. Close to building.	Fell and treat resultant stump.	20-40	U
882	Magnolia	5.0	12-Avg.	2N 2S 3E 2W	MA	Fair.	Multi-stemmed from base. Dead stems present. Wide-spreading. Minor deadwood in crown.	Clean the crown and prune to encourage new growth.	20-40	В
883	Poplar	8.0	9	0N 0S 0E .5W	Y	Good.	Derived from sucker growth and surface roots. Vigourous growth habit. Close to kerb.	Fell and treat resultant stump. Remove scrub willow.	>40	U
884	Ash	5.0	11	1N 1S 1E 1W	Y	Good.	Close to fence. Self-seeded tree. Could become problematic in time to come.	NAR	>40	A
885	Ash	5.0	9,7	1N 1S 2E 1W	Y	Good.	Close to fence. Self-seeded tree. Cold become problematic in time to come.	Pruning required to improve shape and form.	>40	В
886	Ash	3.0	7	.5N .5S .5E 5W	Y	Good.	Close to fence. Self-seeded tree. Could become problematic in time to come.	Pruning required to improve shape and form.	>40	В
887	Ash	4.0	10	1N 1S 1E 1W	Y	Good.	Close to fence. Self-seeded tree. Could become problematic in time to come.	Pruning required to improve shape and form.	>40	В
888	Poplar - Row of 45 nr.	23.0 - Avg.	50 - Avg.	2-4m. N and W	MA	Fair.	Growing at close planting spacing around south-eastern corner of side. Close to watercourse. Heavy ivy growth attached that limited our assessments. Heavy overhang into site from trees along southern boundary. Deformed crowns as trees compete for light and growing space.	Determine ownership of trees. Refer to paragraph 4.3 above.	20-40	C
H1	Hedgerow - Hawthorn - Ash - Sycamore - Rosa - Hazel - Blackthorn	1.0		1.0 width	MA	Good.	Growing along eastern boundary close to Greenhills Road. Wall on east side. Well stocked. Ash suckers vigourous within hedgerow.	Requires regular trimming to curtail height and lateral spread. Retain at height not greater than 2m.	>40	В

LOCA	LOCAL AUTHORITY TREES ALONG AIRTON ROAD.									
A	Norway maple	9.0	33	2N 1S 2E 1W	MA	Good.	Growing on grass margin between footpath and road. Straight stem to 2m. Well-balanced crown. Limbs close to street light fixture	Prune limbs away from light fixture.	>40	A
В	Norway maple	10.0	33	2N 1S 1E 2W	MA	Good.	Growing on grass margin between footpath and road. Limbs overhangs bus stop. Forked at 2m.	Clean the crown. Lightly prune back limbs over road.	>40	A
С	Norway maple Crimson king	6.0	13,14	.5N 1S .5E .5W	М	Fair.	Growing on grass margin between footpath and road. Forked at .75m. Crooked stems. Lacks vigour. Scaring at base east side.	NAR	>40	В
D	Norway maple	11.0	20	1N 1S 1E 2W	М	Good.	Growing on grass margin between footpath and road. Forked at 2m.	Clean the crown.	>40	А
E	Norway maple	12.0	32	2N 2S 1E 2W	М	Good.	Growing on grass margin between footpath and road. Straight stem to 2m. Well-balanced crown.	NAR	>40	А
F	Norway maple	11.0	40	2N OS 2E 2W	MA	Poor.	Growing on grass margin between footpath and road. Heavy scaring along stems to 6. south side.	Remove all dead and weak stems. Reassess regularly. Prune back limbs over road. Consider removing tree.	20-40	С
G	Whitebeam	9.0	41	2N 4S 3E 2W	MA	Good.	Growing on grass margin between footpath and road.	Clean the crown. Lightly prune back limbs over road.	>40	A
Н	Norway maple	10.0	40	2N 2S 2E 1W	MA	Good.	Growing on grass margin between footpath and road. Forked at 2m. Crown raised in past.	Clean the crown.	>40	A
Ι	Norway maple	11.0	41	3N 2S 2E 2W	MA	Good.	Growing on grass margin between footpath and road. Scaring at base. North side. Straight stem to 3m.	Clean the crown.	>40	A
J	Sycamore	12.0	49	2N 3S 2E 3W	М	Fair.	Growing on grass margin between footpath and road. Forked at 2m. Recent excavation on west side. Possible root damage. Open wounds not occluded. Lacks vigour.	Clean the crown.	>40	В

K	Norway maple Crimson king.	6.0	15	1N .5S .5E 1W	М	Poor.	Dead central stem.	Clean the crown. Remove dead central stem.	>40	С
L	Norway maple	12.0	46	4N 3S 3E 3W	MA	Good.	Growing on grass margin between footpath and road. Light ivy growth to 2m. Limbs overhang road.	Clean the crown. Lightly prune back limbs over road.	>40	А
М	Norway maple Crimson king	7.0	18	0N 1S 0E 0W	М	Poor.	Growing on grass margin between footpath and road. Almost dead.	Remove dead central stem. Consider removing tree.	>40	С
N	Sycamore	9.0	39	3N 2S 2E 2W	MA	Fair.	Growing on grass margin between footpath and road. Open wound at 1.5m. west side. Heavy ivy growth to 2m. Forked at 2m. Lacks vigour.	Clean the crown. Sever ivy growth at base.	>40	В
0	Sycamore	9.0	38	3N 3S 3E 2W	MA	Fair.	Growing on grass margin between footpath and road. On right-hand side of entrance to site. Manhole at base south side. Crown raised in past. Close to kerb. Wide-spreading crown. Fused stems.	Clean the crown. Lightly prune back limbs on east side.	>40	В
Р	Norway maple	9.0	39	3N 1S 2E 2W	MA	Good.	Growing on grass margin between footpath and road. On left-hand side of entrance to site. Straight stem. Limb overhang road. Open wound at 2m. south side.	Clean the crown. Lightly prune back limbs over road.	>40	В
Q	Norway maple	10.0	28	2N 1S 1E 2W	MA	Good.	Growing on grass margin between footpath and road. Straight stem to 2m. Crown-raised in past. Small wound at 2m.	NAR	>40	A
R	Sycamore	8.0	39	2N 2S 2E 1W	MA	Fair.	Growing on grass margin between footpath and road. Forked at 1m. Wide-spreading crown. Crown raised in past. Lacks vigour.	Clean the crown.	>40	В
S	Norway maple	9.0	43	2N 2S 2E 2W	MA	Good.	Growing on grass margin between footpath and road. Forked at 1m. Wide-spreading. Close to junction and parked cars at traffic lights.	Clean the crown. Lightly prune back limbs over road.	>40	A

Appendix 1

Scientific Names of trees and hedgerows surveyed:

Common Name	Scientific Name
Common Ash	Fraxinus excelsior
Hawthorn	Crataegus monogyna
Blackthorn	Prunus spinosa
Hazel	Corylus avellana
Cherry	Prunus spp.
Whitebeam	Sorbus aria
Birch	Betula pendula
Myrobalan plum	Prunus cerasifera
Magnolia	Magnolia ssp.to be
	verified when in flower
Weeping birch	Betula pendula var.
	Youngii
Weeping willow	Salix babylonica or
	related hybrids
Hybrid Poplar	Populus x nigra or
Balsam poplar	related hybrids.
	Populus trichocarpa
Maple	Acer platanoides
Sycamore	Acer pseudoplatanus

Appendix 2



Photo 1: Views of tree no. 861 and 862



Photo 2: Views of tree nos. 863-865



Photo 3: Views of Cherry tree no. 866







Photo 5: Views of tree nos. 869-871



Photo 6: Weeping willow tree no. 872

AIRTON ROAD SITE, TALLAGHT, DUBLIN 24 Appendix 2 (contd.)



Photo 7: Heavy growth mass of Poplar shoots near SW boundary.



Photo 7: Signs of root damage to paved surface



Photo 8: Views of row of Poplar trees outside southern boundary.



Photo 8: Trees on LA lands northern boundary



Photo 7: Views of trees along Airton Road at entrance to site.



Photo 8: Views of hedgerow (H1) - East boundary.

Appendix 3 Tree Survey Drawing

TREE SURVEY

