



## ***Tree Management Services***

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*Our Ref: TMS.LD.05.24.02*

*Ref:*

*Date: 27th. August 2024*

**Report Title:** Arboricultural Impact Assessment

**Project: Title:** Proposed Large Scale Residential Development at  
“Gowan Motors Compound” site, Merrion Road, Dublin 4.

**Applicant:** 1 Merrion Compound Land Limited

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## 1. Response to LRD Opinion

## 6. Parks, Biodiversity & Landscape Services

### Arboriculture:

- The arboricultural survey shall be revised with a measured tree canopy. The location of the proposed building façade shall be assessed for impact on the tree canopy. Details of tree trunk protection measures shall be included.
- 1.1 The Tree Protection Plan and the Tree Survey have been updated to show the tree canopy extent.
  - 1.2 The proposed building façade has been reviewed and the tree has been assessed in the context of the proposed building. It is noted that there was historically a building adjacent to this tree which has now been demolished. It is also noted that existing services run around the tree routes. It is considered, having reviewed the services drawings along with the elevations that the tree due to its size and shape will primarily be impacted in a minor way by the second floor of the proposed development. However, with appropriate tree management practices, including regular pruning, there will be no impact / similar impact to the previous relationship with the now demolished buildings on this tree in the longterm.
  - 1.3 It is also noted that this tree is due for removal as part of the BusConnects improvements plan which is expected to be implemented in the next year to 18 months. If the BusConnects is implemented in full this tree will be removed before this proposed building is occupied.
  - 1.4 The street tree shall be protected by protective fencing and/or trunk wrapping during the course of any site development works. Refer to Appendix 2 for examples of suitable Tree Protection Root Barriers. Refer also to the Tree Root Protection Plan drawing ref: TMS.LD.05.24.02A. Refer also to BS 5837:2012 paragraph 6.2 - Barriers and Ground Protection. Great care shall be exercised during the demolition and construction phase to protect the tree. Damage to tree roots or stem structures will be avoided

## **2. Introduction:**

- 2.1 We have been commissioned by McGill Planning Ltd. Of 22 Wicklow Street, Dublin 2 on behalf of the Applicant 1 Merrion Compound Land Limited to prepare this Arboricultural Impact Assessment of a proposed development at "Gowan Motors Compound" site, Merrion Road, Dublin 4. This report details the arboricultural implications of the proposed development on the trees on the site.
- 2.2 Planning permission is sought for a Large Scale Residential Development delivering 200 no. student residential units within two blocks. The blocks range in height up to 6 storeys with a basement below. All associated internal and external amenity space, car and cycle parking, landscaping, bin stores, service provision and vehicular and pedestrian accesses are also proposed.
- 2.3 A Tree Survey was carried out on 27th. May 2024 as a visual ground assessment by a qualified and certified arborist. The survey was carried out to the ISA's *Best Management Practices –Level 1 and Level 2 Assessment* and the *BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations*. There were no trees recorded within the boundaries of the site. The Survey was confined to one street tree growing on the public footpath immediately outside the main entrance to the site. Management recommendations have been prescribed. The Tree Survey recorded information about the trees on the site, and were assessed objectively and without reference to site layout proposals.
- 2.4 A topographical survey was carried out to plot the position of the tree on the site.
- 2.5 A total of one tree (tag no. 1552) was surveyed and plotted. Refer to Tree Survey Report reference *TMS.LD.05.24.01* dated 27th. May 2024.
- 2.6 This report includes the following:
- The Arboricultural Data Sheets - Appendix 1 and includes details of the tree impacted or influenced by the proposed development.
  - A condition assessment of the tree based on the parameters outlined in BS5837: 2012. Trees are categorized into the four sub-categories A, B, C, or U.
  - Preliminary Management Recommendations - Retention, Removal or Tree Surgery Works - see Arboricultural Data Sheets - Appendix 1.
  - A Tree Root Protection Plan drawing Ref: TMS.LD.05.24.02A - to include details of protection measures of the retained tree.
  - This Report does not address any ecological (e.g. bats, ground flora, nesting birds) survey requirements associated with the Site.

## **3. The Site and surrounding environment.**

- 3.1 The site .28ha. or thereabouts is located at "Gowan Motors Compound" site 169 - 177 Merrion Road, Dublin 4. See image no. 1 below:

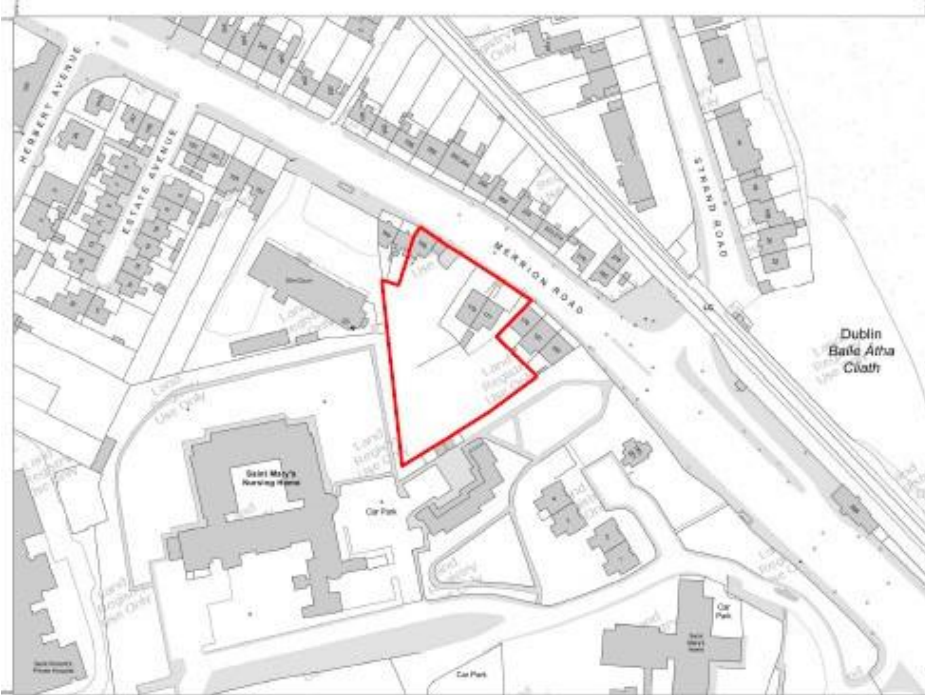


Image No 1: Site at "Gowan Motors Compound" site, Merrion Road, Dublin 4 (map courtesy of McCauley Daye O'Connell Architects Limited).

3.2 The site is enclosed by hoarding fronting onto the Merrion Road. The *P. acerifolia* tree is growing on the public footpath immediately outside the main entrance.

**4. Statutory Legislation.**

4.1 The Forestry Act 2014 and accompanying Forestry Regulations 2017 sets out the legislation governing the felling of trees, the licenses required and offences and penalties for breaches of the legislation. It is important to note that certain tree felling activities are exempted from the need to obtain a felling license. Trees on this site fall into the following clauses of the Felling and Reforestation Policy document published by Department of Agriculture Food and the Marine dated May 2017:-

3.1.2 Under clause 2.3 of the document, these are trees defined as:-

*'A tree in an urban area. (An urban area is an area that comprised a city, town or borough specified in Part 2 of Schedule 5 of the Local Government Act 2001, before the enactment of the Local Government Reform Act 2014.*

4.2 There are also scenarios where a felling license is not required including:

*'A tree outside a forest, the removal of which is specified in a grant of planning permission'*

The Felling and Reforestation Policy document also states that *'that under the Planning and Development Acts 2000 to 2011, local authorities have a mandatory responsibility to include objectives in the Development Plan relating to the preserving of amenities. This empowers the planning authority to make provision for tree preservation by establishing a Tree Preservation Order (TPO). No tree covered by a TPO may be felled, topped, lopped or destroyed without the consent of the planning authority.*

4.3 All tree felling and tree remedial works to be carried out with tree owner's consent.

**5. Tree Population and Impact of Proposed Development on trees:**

5.1 One tree were surveyed within influencing distance of the development. The tree species is 1nr. *Platanus acerifolia* (London Plane). A summary of the Tree Survey Schedule is provided in Appendix 1 detailing tree height, girth diameter, crown spread, condition and preliminary management recommendations.

- 5.2 The tree is a non-native species and is aged approximately between seventy-five and one hundred years old.
- 5.3 The tree was planted as part of a streetscape scheme of avenue planting of Lime and Plane along Merrion Road. The species is noted as good avenue tree with good resilience and tolerance of pollutants and suited to an urban environment.
- 5.4 BS 5837: 2012 determines that trees should be categorized using the criteria shown in Table 1:

<b>Category A</b>	Trees of high quality with an estimated remaining life expectancy of at least 40 years.
<b>Category B</b>	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
<b>Category C</b>	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
<b>Category U</b>	Those in such condition that they cannot be realistically be retained as living trees in the context of the current land use for longer than 10 years.

**Table 1:** BS 5837: 2012 Tree Categorization

- 5.5 The tree is generally in fair condition consistent with its age and past management history. The tree has a paved-over root surface showing signs of cracking and upheaval. There is some distortion to the road kerb. The tree has a stout main trunk and a reasonably well-balanced crown. There is some minor storm damage in the upper crown. Root development of this tree may be restricted by poor planting pit design impairing good root function and growth. The tree has grown with some management intervention and tree treatment works have been carried out in the past.
- 5.6 Impact of the Proposed Development:  
 Table 2 *Categorization of Surveyed trees* lists the trees x category that are impacted by the proposed development and those trees that can be retained. Trees that require removal for reasons of sound arboricultural management are also listed.

	TREE CATEGORISATION				Totals
	A	B	C	U	
Trees proposed for retention.	Nil	Tree no. 1552	Nil		1
Trees proposed for removal to facilitate the development	Nil	Nil	Nil		0
Trees to be removed for reasons of sound arboricultural management				Nil	0

**Table 2:** *Categorization of Surveyed trees.*

- 5.7 The surveyed street tree (tag ref. no. 1552) growing immediately outside the site is categorized as a Category B moderate retention category tree. This tree, within influencing distance of the proposed development is proposed for retention. The proposed development will involve considerable modifications to the existing footpaths, kerbs and hard surfacing with the Root Protection Area of the tree. The proposed works have the potential to cause injury or damage to the above-ground stem and branches of the tree and below-ground tree roots during demolition and construction works. Tree Protection measures are recommended in Section 5. below.
- 5.8 There are no other trees impacted by the proposed development.
- 5.9 There are no trees within the site is proposed for removal for reasons of sound arboricultural management.

**6. Tree Protection measures during the proposed development:**

- 6.1 The street tree (London Plane) tag no. 1552 shall be protected during the construction phase of the proposed development so as to minimize damage to tree roots, stem or overhanging limbs. In particular great care shall be exercised during any demolition, excavation and construction works occurring within the Root Protection Area (RPA) and from construction traffic entering and egressing from the site. Refer to the Tree Protection Plan drawing ref: *TMS.LD.05.24.02A*. The guidelines as outlined in BS5837: 2012 shall be implemented in order to minimize or prevent damage to the tree during construction. These guidelines are copyrighted and cannot be reproduced for inclusion in this report. Refer to paragraph 4.6 – Root Protection Area (RPA). For single stemmed trees, the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter. Refer to Appendix 3 Table 3 - *Tree Root Protection areas of surveyed trees*.
- 6.2 In general the ability of the tree to tolerate disturbance within the RPA depends on prevailing site conditions and on individual circumstances. It is generally recommended that where demolition or construction occurs within the RPA then precautions should be taken to: -
- Prevent physical damage to roots during construction
  - Make provision for oxygen and water to reach the roots
  - Allow for the future growth of the root system
  - Preserve the soil structure at a suitable bulk density for root growth and function.
- 6.3 The street tree shall be protected by protective fencing and/or trunk wrapping during the course of any site development works. Refer to Appendix 2 for examples of suitable Tree Protection Root Barriers. Refer also to the Tree Root Protection Plan drawing ref: *TMS.LD.05.24.02A*. Refer also to BS 5837:2012 paragraph 6.2 - Barriers and Ground Protection. Great care shall be exercised during the demolition and construction phase to protect the tree. Damage to tree roots or stem structures will be avoided.
- 6.4 Conventional tree barriers to protect trees on construction sites normally consist of a scaffold framework or similar approved hoarding fencing. The default specification consists of a scaffold framework, well braced to resist impacts - See Appendix 2. Refer also to BS 5837:2012 – Figure 2 and Figure 3 and clauses 6.2.2.2 and 6.2.2.3. To ensure the protected barriers are recognized and respected, clear signage is affixed to the barriers in unrestricted easily viewed locations with words such as 'CONSTRUCTION EXCLUSION ZONE - NO ACCESS'.
- 6.5 The location of the tree and the proposed site layout does not allow for the recommended and conventional tree barriers normally erected around the tree prior to the commencement of the construction phase. The erection of protective fencing or high hoarding is restricted given the location of the tree close to the kerbing along Merrion Road and to the footpath on the western (site) side. It will however, be important to protect the main trunk and overhanging limbs and the below-ground tree roots during any demolition or construction works. The root flare and main trunk of the tree shall be protected by wooden panels or wrapped in willow or bamboo screen wrapping or similar approved protective fencing around the main trunk and to a height of the first significant branch. See example image 2 Appendix 2. This protective wrapping shall be securely bound around the main trunk and shall remain in place for the duration of the works. No nails or other metal objects shall be used so as not to cause damage to the main trunk or tree bark. Any breach of the barrier, hoarding or wrapping shall be reported to the consulting arborist.
- 6.6 Where the existing hard surfacing within the Tree Root Protection Area is to be removed, great care should be taken to prevent damage to roots underneath the pavement. Light weight machinery or hand-held tools are recommended to remove the existing hard surfacing working outwards from the tree so as not to avoid trafficking or compaction over the exposed ground. The location of tree roots should be identified as works proceed and any exposed tree roots should be carefully wrapped in moist hessian material or similar approved to prevent desiccation and roots from drying out. Any wrapping shall be removed prior to backfilling.
- 6.7 Suitable ground protection measures shall be installed over any exposed ground following the removal of hard surfacing within the Root Protection Area of the tree. New temporary ground protection such as ground protection mats or a cellular confinement system or similar approved and capable of supporting any traffic entering or using the site without causing compaction of underlying soil or causing damage to underlying tree roots.

- 6.8 If a new hard surface is to be laid, then any works should be carried out in accordance with the recommendations as outlined in Paragraph 7.4 of BS 5837: 2012 – Permanent hard surfacing within the RPA. If possible the existing sub-base material beneath the existing hard surfacing should be retained. Retained roots should be surrounded with good topsoil or sharp (not builders) sand before the new surface is laid. Any new hard surface shall be underlain with a geotextile liner to prevent any pollution contamination the curing of fresh concrete filtering downwards to the existing tree roots.
- 6.9 All underground services shall be routed away from the Tree Protection Area of the tree and where this is not possible then other trenchless solutions should be used in accordance with the recommendations as outlined in Paragraph 7.7 of BS 5837: 2012 Underground and above ground utility apparatus.
- 6.10 Topsoil, debris or other building materials should not be stacked on or close to the main tree trunk.
- 6.11 Storage areas for any containers, toilets, fuels, liquids, gas tanks, shall be located to the outer edge of the Root Protection Area due to the risk of ground compaction or soil contamination.
- 6.12 Damage to overhanging limbs by heavy machinery shall be avoided. A professional Tree Surgery Company shall be engaged where necessary to prune back any overhanging limbs in order to facilitate access.
- 6.13 A pre-construction meeting shall be held between the Main Contractor, Main Architect, Engineer, Consulting Arborist and Dublin City Council to review the measures to be taken to protect the existing street tree outside the proposed new development. At the meeting, the specification, design and location of the Tree Protection measures shall be reviewed and confirmed and commitments sought that the measures be in place before works commence.

## 7. **Arboricultural Recommendations:**

- 7.1 It may be necessary to carry out tree remedial works to the tree following the completion of the proposed development. This will reduce the risk of failure, prolong longevity or maintain the condition of the tree. Remedial works should be based on what is required to establish acceptable levels of risk and management in the context of the proposed land use. Remedial works describes such actions as pruning, lopping, crown works or felling to individual trees in order to reduce the risk of trees failing and to help provide an acceptable margin of safety. Refer to Appendix 1 - Preliminary Management Recommendations in the Arboricultural Data Sheets.
- 7.2 All tree works shall be carried out to *BS 3998:2010 Tree Work - Recommendations*. Works to be carried out with the full permission and agreed in advance with Dublin City Council. The works as detailed in the Tree Schedule below shall only be carried out by a fully insured, trained, certified and competent Tree Surgery firm. During any tree works, care shall be taken to protect surrounding property, buildings and other structures. Strict safety precautions shall be put in place to safeguard site occupants, visitors, pedestrian and vehicular traffic and members of the general public. If possible, felling work should not be carried out during the bird- nesting season.
- 7.3 An Arboricultural Method Statement shall be drawn up and referred to when carrying out any Tree Felling and Remedial Works.

## 8. **Summary:**

- 8.1 There are no trees growing within the site application area. A total of one tree was identified and surveyed on the public footpath immediately outside the main entrance. This tree was surveyed and assessed objectively without reference to site proposals.
- 8.2 The London Plane tree, growing on the public footpath is within influencing distance of the proposed development. The tree is to be protected and retained during any proposed demolition and construction works.
- 8.3 The use and erection of conventional tree protection barriers is restricted given the location of the tree. Therefore high wooden hoarding or trunk willow wrapping (or similar approved) shall be erected or affixed as a



protective measure around the tree to protect the root flare and main trunk from damage occurring during demolition and construction. The specification, design and location of the protective fence, hoarding or wrapping to be agreed and erected prior to the commencement of any site works. Damage to low overhanging limbs is to be avoided and light pruning works may be necessary before works commence.

- 8.4 Any works within Root Protection Areas of retained trees shall be carried out in accordance with the relevant sections of BS 5837:2012.
- 8.5 The impact of the proposed development on the London Plane tree (T1552), is probably similar or less than that of the permitted developments DCC Reg. Ref. 4477/19 and 4051/21 which this proposed scheme is replacing.

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

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**Larry Phelan** is a Professional Forester and Certified Arborist. He has over 35 years' experience in a broad range of tree-related matters including Forestry, Arboriculture, Landscaping and related activities. He trained and worked for the semi-state 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.

## ***Tree Survey Schedule***

Tree No.	Species	Ht. m.	DBH (cms.)	Dripline	Age	Physiological Condition and comments <ul style="list-style-type: none"> <li>• Good</li> <li>• Fair</li> <li>• Poor</li> <li>• Dead</li> </ul>	Estimated remaining contribution (in years). <10 10+ 20+ 40+	Retention Category	Preliminary Management Recommendations
1552 Other 5995	<i>Platanus acerifolia</i> London plane	19.0	74	8N 7S 5E 7W	MA	<p>Fair.</p> <p><u>Root:</u> Limited assessment due to paved over root surface and traffic flow on east side. Paved over with tarmacadam root area to within about 400mm of trunk. Flowering plants and young cordyline growing around base. Upheaval and cracking to pavement. Disruption and distortion of kerb on road side. Signs of pavement lift from raised buttress roots. Manholes on southern and northern sides.</p> <p><u>Stem:</u> Limited assessment on east side due to traffic flow. Stout bow-shaped and self-corrected stem. Main forking point at about 5m. At least 8 no. stems from forking point. Possible ingress/retention of water at forking point - requires further investigation. Lesions along main trunk. Signs of fungal discoloration on west side at about 3m. Generally clear stem to about 7m. Crown-raised in past.</p> <p><u>Crown:</u> Limited assessment on east side due to traffic flow. Well-balanced and open crown. Slightly more crown weight to north and west. Limbs overhang Merrion Road. Cable through centre of crown at about 5m. Pruned and crown lifted in past. Deadwood in crown of tree and accumulated debris in stem union. Storm-damaged and broken stem in centre of crown at about 14m. Minor decline and foliage wilt in crown possibly Anthracnose leaf blight or other underlying disorder. Street light on northwest side at about 10m.</p>	40+	B2	<ol style="list-style-type: none"> <li>1. Consider re-design of planting pit to improve filtration/aeration of roots and improve root function and development.</li> <li>2. Carry out aerial investigation of crown and all forking points.</li> <li>3. Prune to remove/repair storm-damaged stem in central crown. Clean the crown removing all deadwood. Light tip prune back limbs away from streetlight and over Merrion Road.</li> <li>4. Inspect regularly at least annually or after major storm events.</li> </ol>

## Appendix 2:

- *Default specification for protective barrier - Figure 2.*
- *Examples of above-ground stabilizing systems - Figure 3.*
- *Example of Tree Trunk Protection with Willow screen wrapping (or similar approved) - Image 2.*

Figure 2 Default specification for protective barrier

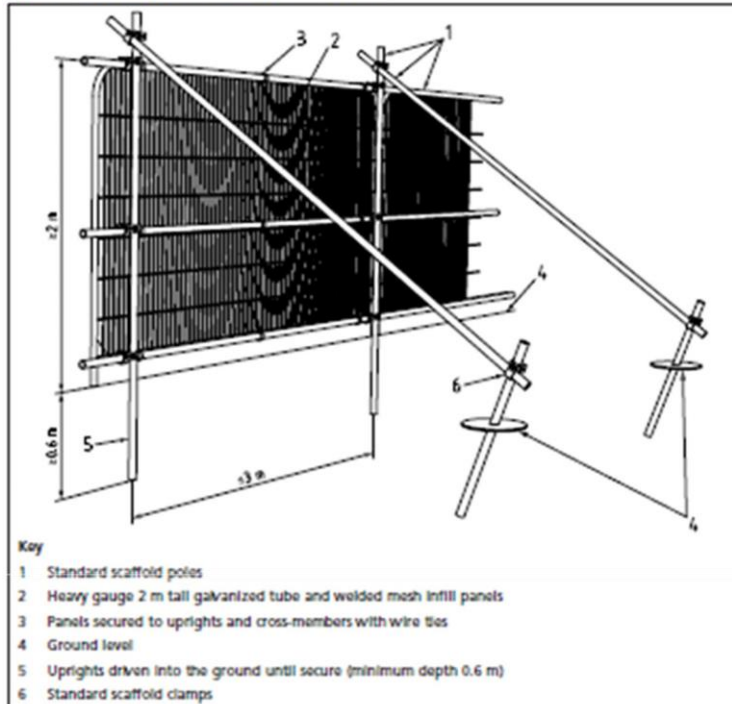


Figure 3 Examples of above-ground stabilizing systems

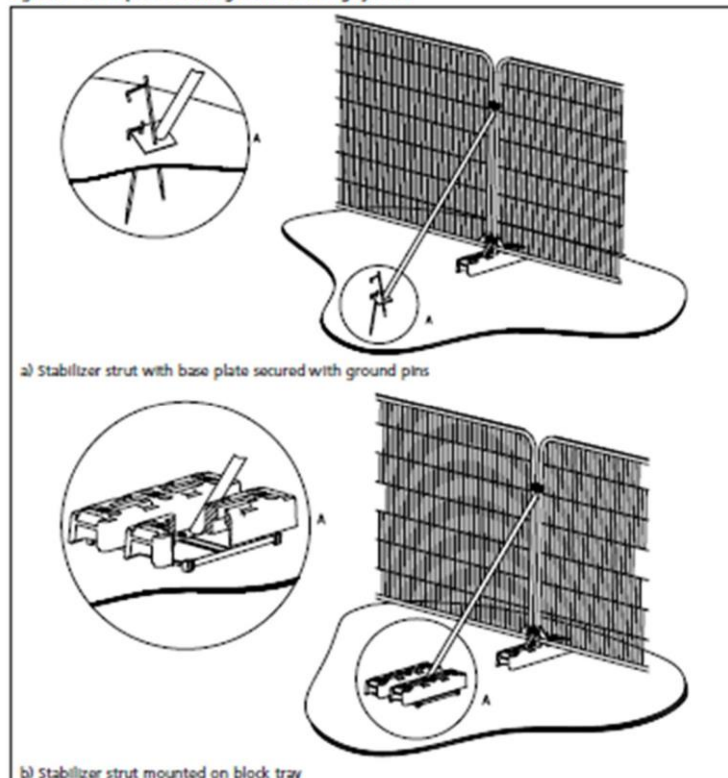




Image 2. Example of Tree Trunk Protection with Willow screen wrapping (or similar approved).

## Appendix 3

SPECIES	Tree No	GIRTH	RPA(m2)	RPA
				radius(m.)
<i>P. acerifolia</i>	1552	74	248	8.88

**Table 3:** *Tree Protection Area of the surveyed tree.*

## **Appendix 4** - *As attachment - Tree Root Protection Plan Drawing Ref: TMS.LD.05.24.02A*