



Carver Fields

Arboricultural Impact Assessment

For **Stantec UK Ltd**

Project No.: **STA007-015**

January 2026

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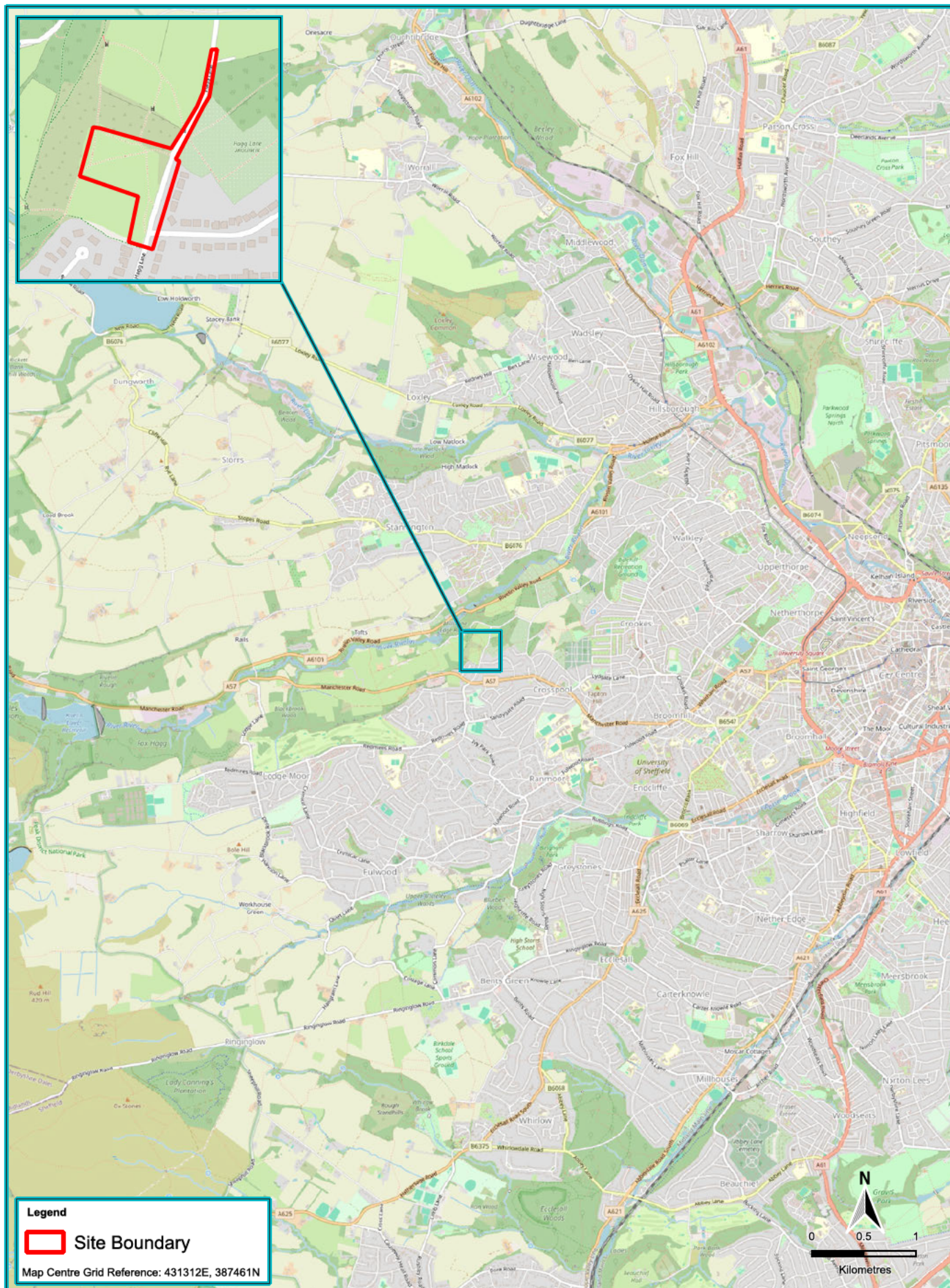
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Legend

- Canopy Extent of Category 'A' Tree
- Canopy Extent of Category 'B' Tree
- Canopy Extent of Category 'C' Tree
- Root Protection Area of Tree / Group
- Stem of Individual Tree
- Extent of Tree Stems within Groups / Hedges
- Site Boundary
- Existing Site Layout



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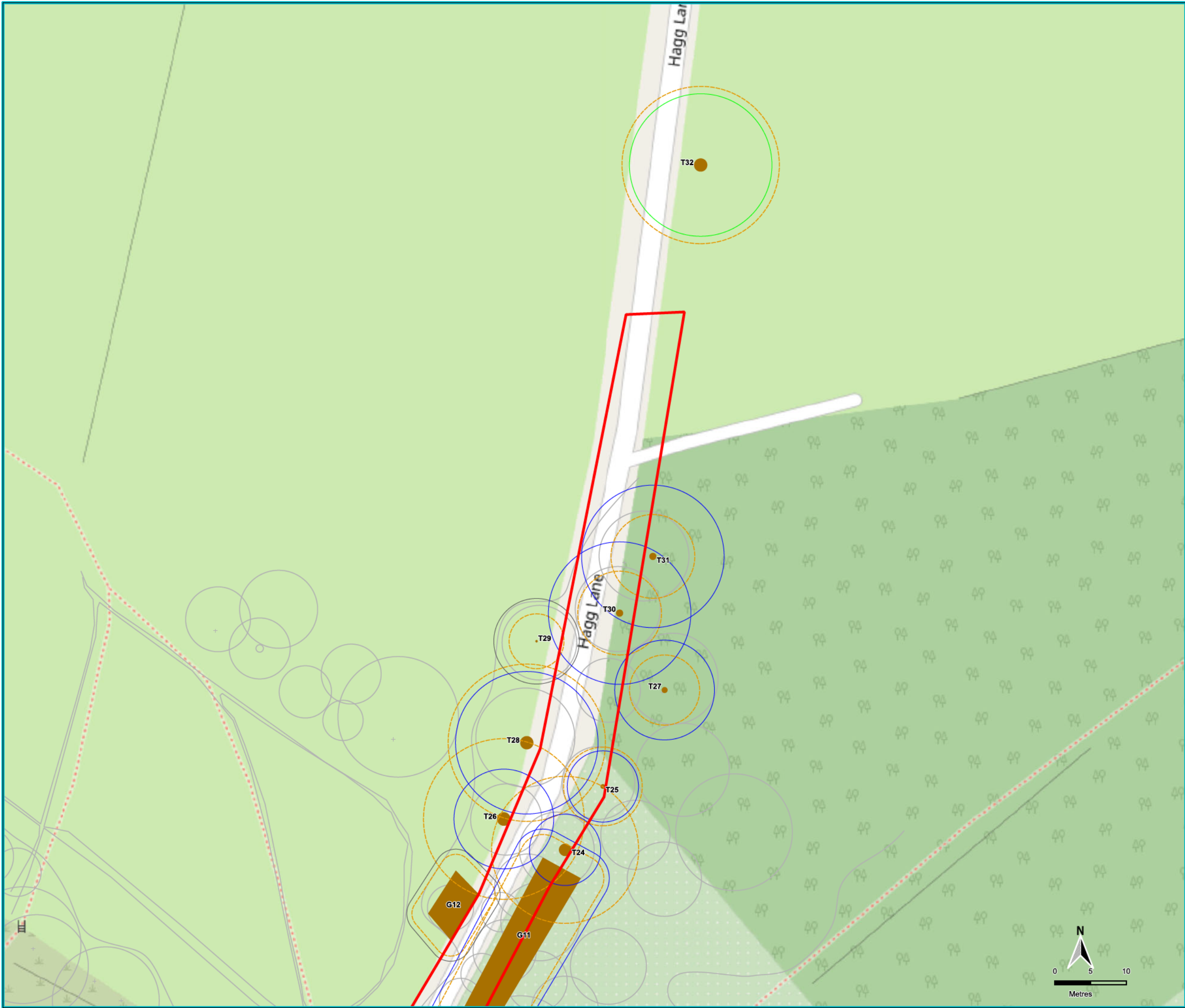
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Figure Title
Tree Constraints Plan
(TCP01)

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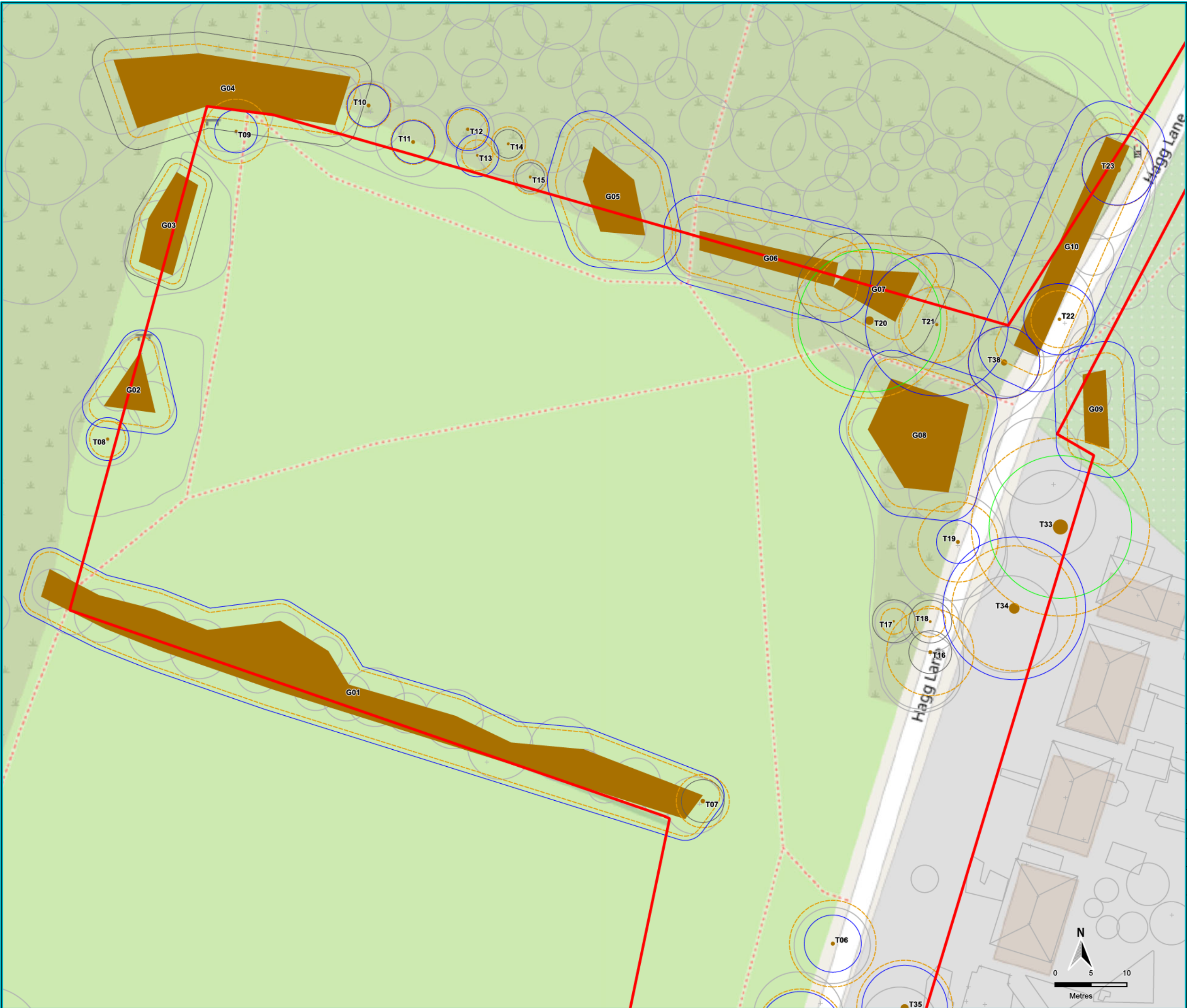
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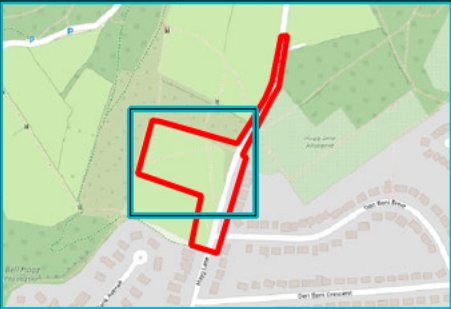
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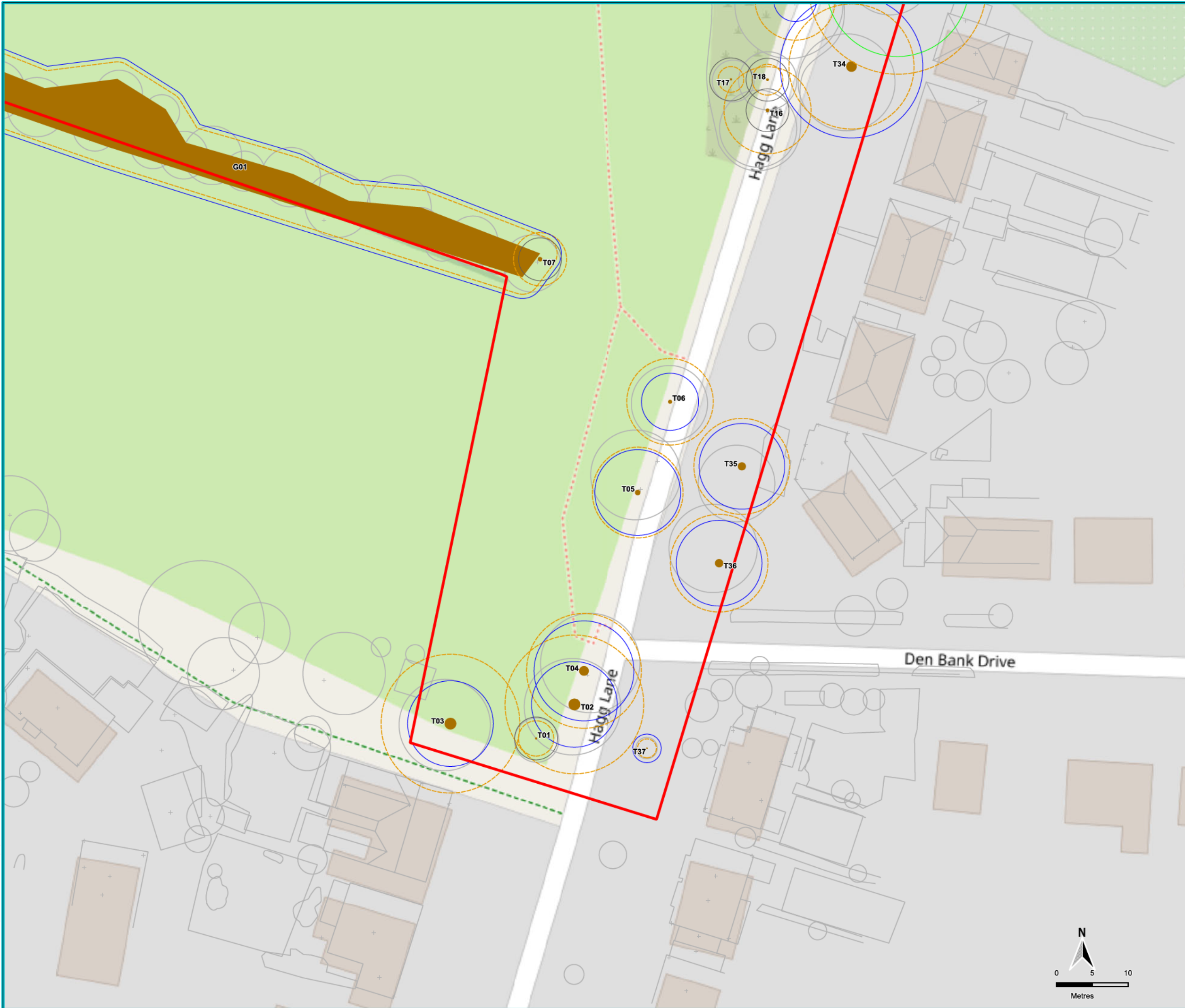
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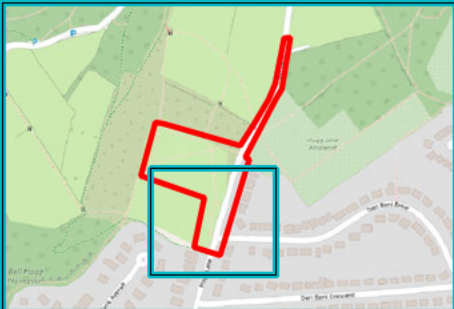
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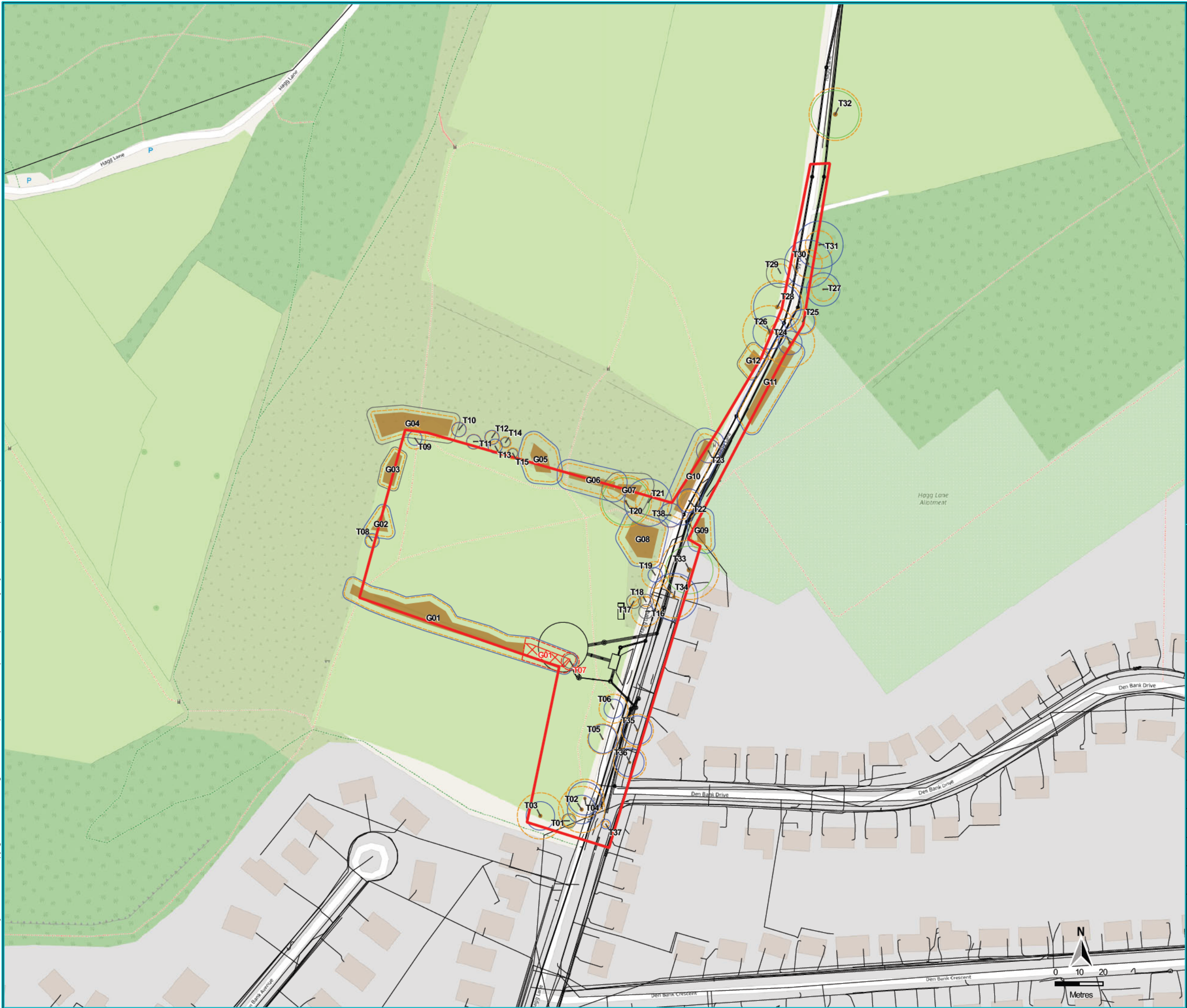
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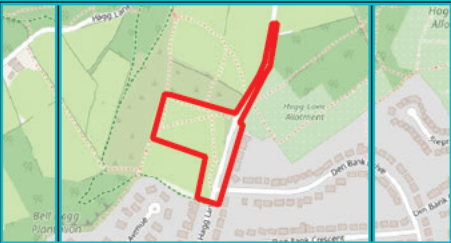
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Figure Title
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 - Root Protection Area of Tree / Group to be Retained
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Figure Number
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Figure Title
Tree Retention and
Removal Plan
(TRRP01)

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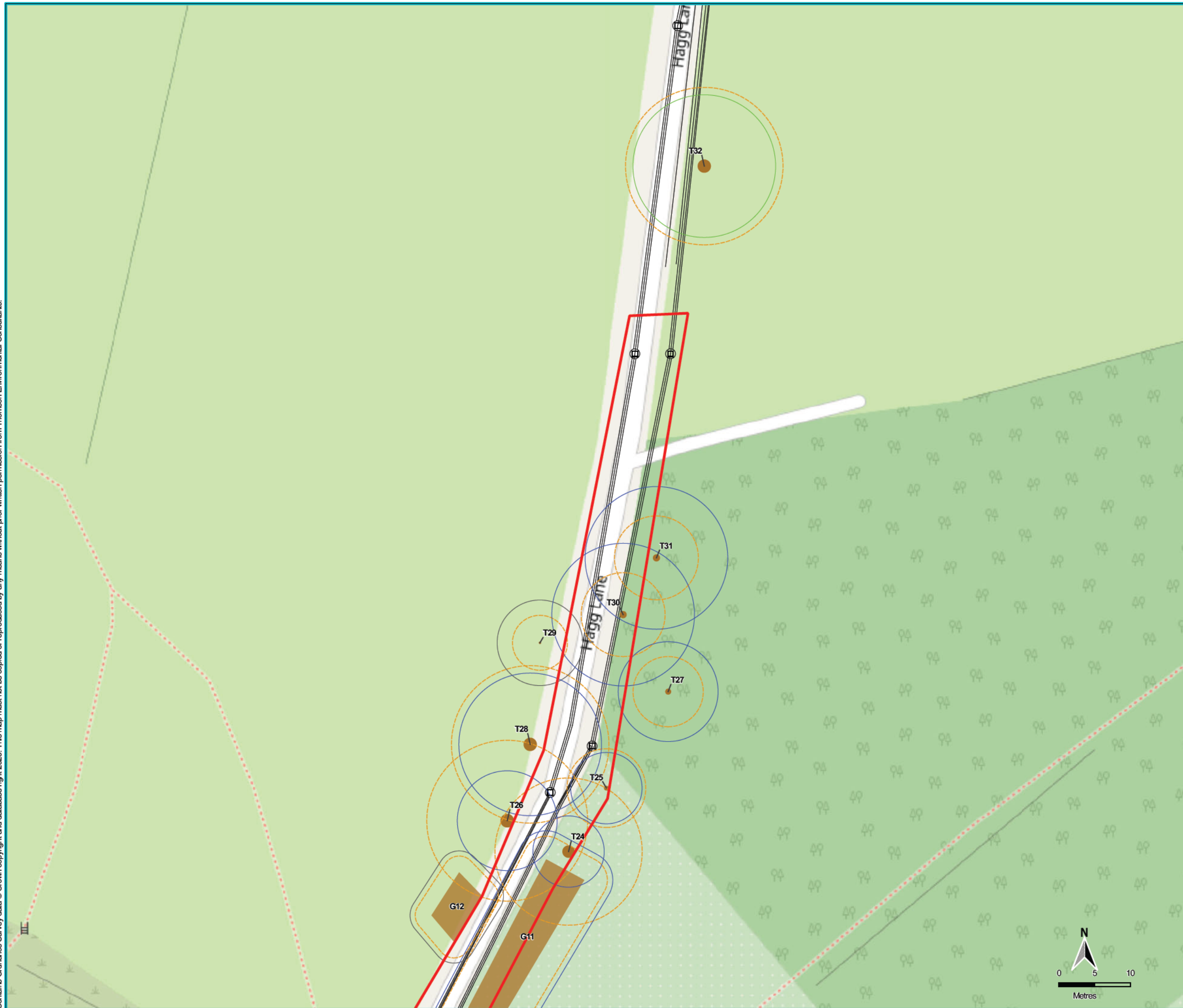
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Figure Title

Tree Retention and
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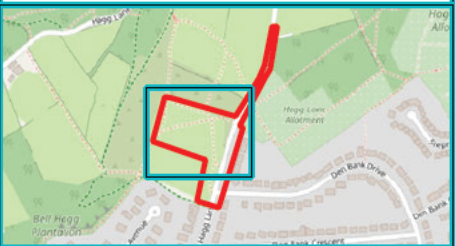


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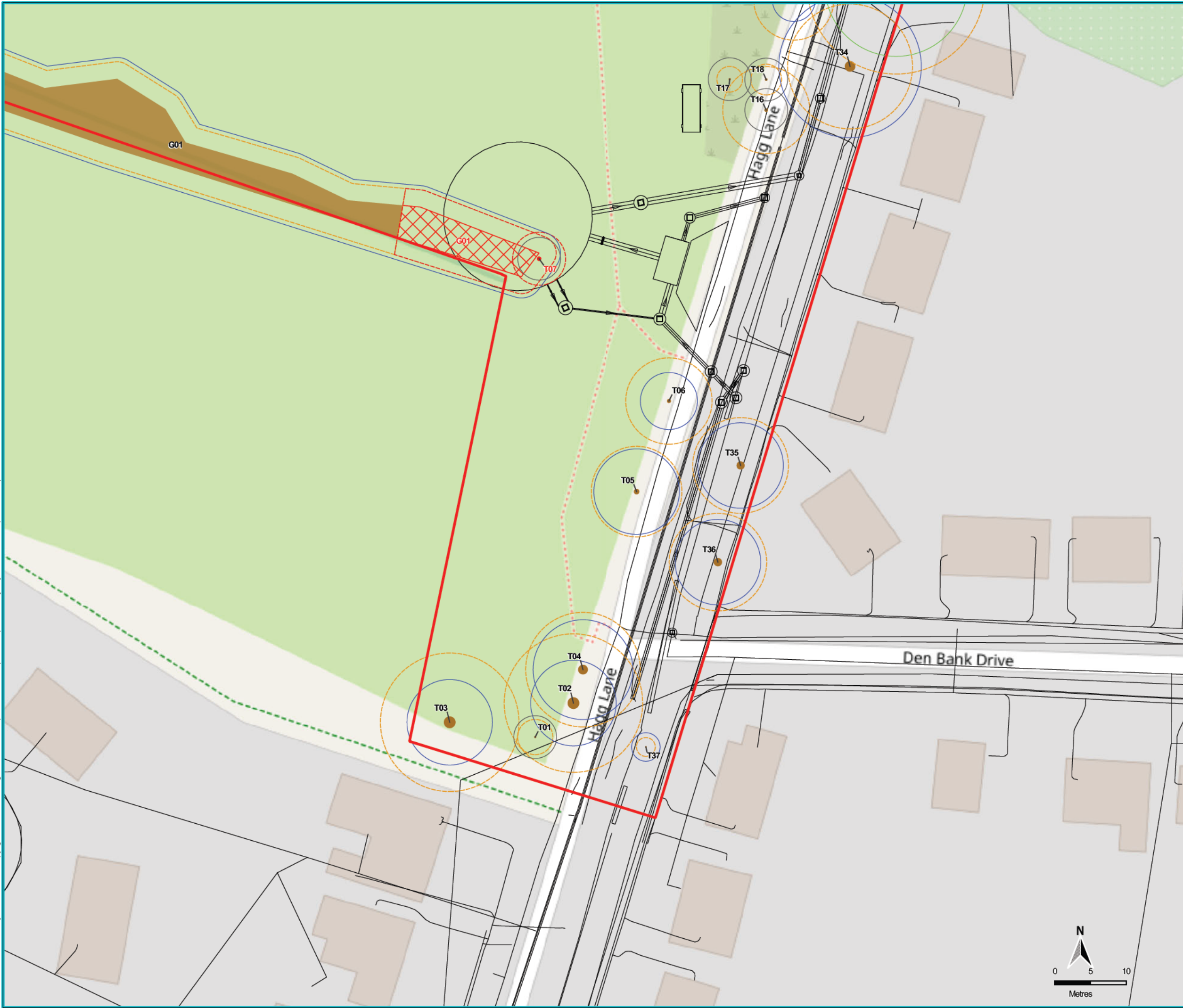
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Figure Title
Tree Retention and Removal Plan (TRRP01)

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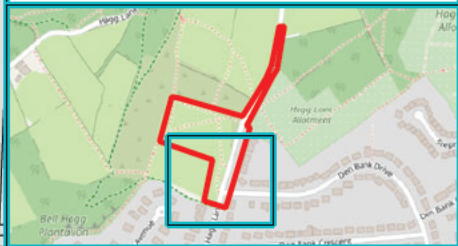


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Figure Number
3d

Figure Title
Tree Retention and
Removal Plan
(TRRP01)

1. Summary

- 1.1.1** Stantec UK Ltd commissioned Thomson Environmental Consultants to conduct an Arboricultural Impact Assessment for the development proposals at Rivelin Valley CSO, S10 5PE, which involve the installation of a storm water attenuation system, including an underground attenuation tank, associated weir chambers, new pipework, and the installation of a kiosk and vent stack.
- 1.1.2** The works will require localised excavation and construction activities within the site boundary to accommodate the new drainage infrastructure. This report follows the Arboricultural Survey Report submitted by Thomson Environmental Consultants 251127 STA007-015 Arb survey report Carver Fields 003 BS-Merged.
- 1.1.3** A total of 38 individual trees and 12 groups of trees were recorded during the survey, details of which are listed in the Tree Schedule at Appendix 1. These comprised of 3 Category 'A' individual trees, 27 Category 'B' individual trees, 8 Category 'C' individual trees, 8 Category 'B' groups of trees and 4 Category 'C' groups of trees.
- 1.1.4** The development proposals directly require the complete removal of T07 and the partial removal of G01. A full breakdown of these trees, along with their quality category, is provided at Appendix 3 and at section 4.3 of this report.
- 1.1.5** This means that 37 individual trees and 11 groups of trees will be retained entirely within the scheme, and where only partial removal is required, sections of these features will also be retained. All retained trees can be integrated into the new development, providing the protection measures outlined within this report are detailed fully within a comprehensive arboricultural method statement, implemented as a condition of planning consent.
- 1.1.6** A number of impacts to retained trees have also been identified, which are to be mitigated by the measures described within this report, to be detailed within a comprehensive method statement. These impacts are:
- Installation of a new attenuation basin - G01
 - Installation of new services in areas of existing grass - T33, T34, T35, T36
 - Installation of new services in areas of existing hard standing - T01, T02
- 1.1.7** Checks made on Sheffield City Council's online interactive mapping software indicate that no trees recorded as part of this report are subject to any Tree Preservation Orders, and the site is not located within a Conservation Area.
- 1.1.8** The council's local plan policies have been reviewed, and the proposals are in accordance with local policy.
- 1.1.9** The arboricultural impacts associated with the development of the site are considered acceptable, providing that the trees removed as part of the development are compensated for by new tree planting at the landscaping stage of the project.

2. Introduction

2.1 Brief and Objectives

2.1.1 Stantec UK Ltd commissioned Thomson Environmental Consultants to complete an Arboricultural Impact Assessment (AIA) based on the development proposals at Carver Fields (hereafter referred to as 'the site').

2.1.2 The brief was to complete:

- An Arboricultural Impact Assessment based on the development proposals; and
- A Tree Retention & Removal Plan

2.1.3 The purpose of the AIA is to determine which existing trees will need to be removed for the development proposals and identify any impacts to retained trees.

2.2 Development Background

2.2.1 The development proposals for the site involve the installation of a stormwater attenuation system to support improved surface water management within the site. Works will include the construction of an underground storm attenuation tank, associated weir chambers, and new connecting pipework, together with the installation of a small above-ground kiosk and vent stack.

2.2.2 The development will involve localised excavation and construction activities to facilitate the new drainage infrastructure, with all works confined to the defined development footprint. These proposals are hereafter referred to as 'the development'.

2.2.3 There are a number of trees within and adjacent to the site boundary that will be affected by the development.

2.2.4 Checks made on Sheffield City Council's online interactive mapping software indicate that no trees recorded as part of this report are subject to any Tree Preservation Orders, and the site is not located within a Conservation Area.

2.2.5 A review of the DEFRA MAGIC map was also undertaken, which showed that there are no designated ancient woodlands within or adjacent to the site.

2.3 Limitations

2.3.1 The information provided within this report and in the accompanying Tree Schedule covers only those trees that were inspected and their condition at the time of survey.

2.3.2 This assessment has been prepared based on the development proposal plans provided by Stantec UK Ltd. Any differing layouts, tree removal/retention requests or revised construction methods will need to be reviewed.

- 2.3.3** Whilst this report makes general observations on the long-term potential of the trees surveyed, trees are dynamic organisms and subject to continual change. This report should therefore not be relied upon for the purposes of development for more than 24 months from the date of the survey.

3. Planning Policy Review

3.1 The National Planning Policy Framework

- 3.1.1** The National Planning Policy Framework (NPPF) (2024) provides planning policy guidance at a national level. The Framework details the aspiration to secure increased tree cover within new developments; comprises both new tree planting and the retention of existing trees where possible; states that decisions should contribute to and enhance the natural and local environment; requires that development proposals award particular consideration to Veteran Trees and Ancient Woodland as important features; and emphasizes the benefit that can be secured through the provision of public access to, and resultant appreciation of, retained tree cover (relevant parts reproduced below).

3.1.2 Achieving well-designed places - Paragraph 136:

'Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible.'

3.1.3 Habitats and biodiversity - Paragraph 193c:

'Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;'

3.2 Regional Planning Policy

- 3.2.1** There is no relevant regional planning policy in this case.

3.3 Local Plan Policy

3.3.1 **BE16 Development in Conservation Areas**

In Conservation Areas, permission will only be given for proposals which contain sufficient information to enable their impact on the Area to be judged acceptable and which comprise:

(a) development, including erection of buildings and changes of use from originally intended uses of buildings, and built development in open spaces; or demolition of buildings, walls and other features; or

(b) proposals involving the felling or lopping of trees; or

(c) advertising;

which would preserve or enhance the character or appearance of the Conservation Area. Buildings which make a positive contribution to the character or appearance of a Conservation Area will be retained. These principles will also be material considerations in considering proposals which would affect the setting of a Conservation Area or significant views into, or out of, the Area. Redevelopment of sites which detract from a Conservation Area will be encouraged where it would enhance the character or appearance of the Area.

3.3.2 BE18 Development in Areas of Special Character

In Areas of Special Character, the following will be expected:

(a) the submission of planning applications which provide enough information to enable an assessment to be made of the impact of the development on the Area; and

(b) the retention of buildings, walls, trees, open spaces and other features that contribute to the character of the Area; and

(c) new development which respects the appearance and character of the Area.

3.3.3 BE6 Landscape Design

Good quality landscape design will be expected in new developments and refurbishment schemes. Applications for planning permission for such schemes should, where appropriate, include a suitable landscape scheme which:

(a) provides relevant information relating to new planting and/or hard landscaping, and of existing vegetation to be removed or retained; and

(b) provides an interesting and attractive environment; and

(c) integrates existing landscape features into the development, including mature trees, hedges and water features; and

(d) promotes nature conservation and uses native species where appropriate.

GE15 Trees and Woodland

Trees and woodland will be encouraged and protected by:

(a) planting, managing and establishing trees and woodland, particularly in the South Yorkshire Forest; and

(b) requiring developers to retain mature trees, copses and hedgerows, wherever possible, and replace any trees which are lost; and

(c) not permitting development which would damage existing mature and ancient woodlands.

3.3.4 Policy DE3: Public Realm And Landscape Design

Landscape proposals should be informed by detailed appraisals of the site, context and local character to help create multifunctional, attractive, legible, well-defined spaces around and between buildings. These should be designed in a manner that is inclusive, dementia friendly, improves vitality and safety, encourages active and healthy lifestyles and enhances biodiversity.

Development should therefore ensure that:

d) existing features that contribute to the character of the place (including landforms, built structures, boundary treatments, materials and mature trees) are incorporated as an integral part of the design;

3.3.5 Policy GS7: Trees, Woodlands And Hedgerows

The following criteria will apply when considering development proposals that affect trees, woodland and hedgerows and when assessing tree planting proposals:

a) Developments should retain and integrate healthy, mature trees and hedgerows, and replace any trees that need to be removed on a basis greater than one for one using trees that are a minimum size of extra heavy standard.

b) Development will not be permitted that would directly or indirectly damage existing mature or ancient woodland, veteran trees, or ancient or species-rich hedgerows, other than in wholly exceptional circumstances and where a suitable compensation strategy exists.

c) Where existing trees are within or immediately adjacent to a development site, development proposals should give priority to retaining good quality trees and ensure that trees are adequately protected during the demolition and/or construction phases of the development;

d) Tree planting should take place on site, but where it can be demonstrated that this is not possible, a contribution towards off-site provision will be permitted.

e) New trees should be planted at a ratio of at least 1 tree per dwelling, of which a minimum of 10% should be street trees on all residential developments of 10 or more homes (where new streets are provided) and 1 tree per 100sqm of internal floorspace for non-residential development;

f) Locally native species of local origin should be used and, where appropriate, reflect similar habitat(s) of ecological importance and not conflict with other important habitats, natural features or archaeological remains;

g) Street trees and other green infrastructure should be located so that they are integrated into the street scene avoiding potential conflict with other features or activities;

h) Existing street trees should not be removed or pruned excessively to facilitate development;

i) Appropriate provision should be made for ongoing management of any trees, woodland and hedgerows that have been planted and appropriate measures should be put in place to minimise the risk of trees failing.

4. Arboricultural Impact Assessment (AIA)

4.1 Introduction

4.1.1 The purpose of this section is to determine which existing trees will need to be removed for the development proposals, which trees can be retained and identify any impacts to retained trees.

4.1.2 The protection of retained trees is paramount to their survival during the development process and their consequent long-term contribution to the site. The Root Protection Areas (RPAs) of trees identified for retention should remain protected throughout the development to avoid potential damage, such as:

- Soil compaction;
- Root severance due to excavation;
- Soil coverage with impermeable material;
- Alterations in ground level;
- Leaks and spillages from stored materials; and
- Vehicle and heavy plant collision.

4.2 Documents

4.2.1 This assessment has been based on documents listed within Table 1 below.

Table 1: Documents upon which this assessment has been based

Originator	RefNo	Title
Thomson Environmental Consultants	STA007-015	251127 STA007-015 Arb survey report Carver Fields 003 BS-Merged
Stantec	YW.205212	Proposed Site Layout Plan

4.3 Trees to be removed

4.3.1 The development proposals directly require the complete removal of T07 and the partial removal of G01 group of trees. A full breakdown of these trees, along with their quality category, is provided at Appendix 3 and at section 4.3 of this report.

4.3.2 The Tree Retention and Removal Plan (Figure 3) has been based on the documents shown in Table 1 and identifies the relationship and conflicts between the proposals and the existing trees. A breakdown of removals and retentions by BS5837 quality category is shown in Table 2 below and at Appendix 2, which also lists the tree reference numbers.

Table 2: Summary of Trees to be removed

Removal	Tree Category				Total
	A	B	C	U	
Number of Trees	0	0	1	0	1
Number of Groups (in full)	0	0	0	0	0
Number of Groups (in part)	0	1	0	0	1
Total	0	1	1	0	2

4.3.3 The 'number of trees' in Table 2 above denotes individual trees as referenced within this report to be removed. Appendix 2 identifies all individual trees and groups of trees that are to be removed and gives a reason as to why removal is required. The table also includes whether partial or full removal of groups of trees is required.

4.4 Impacts on retained trees

4.4.1 Table 3 below provides a summary of the anticipated impacts to retained trees associated with the enabling and demolition phase, and construction phase of the development. A rating is also provided for each impact: either negligible, significant or high.

4.4.2 'Negligible' impacts are works that are proposed within the RPA of a retained tree, but that will not cause damage which will have any implications for the long-term health and retention of the tree, providing very basic tree protection measures are adhered to. Encroachment into an RPA amounting to less than 10% of the total RPA and/or excavations (i.e. new hard-standing/service trenches, etc.) located up to 20% into an RPA radius towards the tree stem will ordinarily be considered a 'negligible' impact.

4.4.3 'Significant' impacts are works that are proposed within the RPA of a retained tree and, in the absence of suitable tree protection measures, have the potential to cause damage that could have implications for the long-term health and retention of the tree. Encroachment into an RPA amounting to between 10% and 20% of the total RPA and/or excavations (i.e. new hard-standing/service trenches, etc.) located between 20-50% into an RPA radius towards the tree stem will ordinarily be considered a 'significant' impact.

4.4.4 'High' impacts are works that are proposed within the RPA of a retained tree and, in the absence of suitable tree protection measures, will cause damage that will have implications for the long-term health and retention of the tree. Encroachment into an RPA amounting to above 20% of the total RPA and/or excavations (i.e. new hard-standing/service trenches, etc.) located beyond 50% into an RPA radius towards the tree stem will ordinarily be considered a 'High' impact.

Table 3: Summary of Impacts on Retained Trees

Construction Phase			
Tree	Category	Impact	Rating
T33	A 1	Installation of new services in areas of soft landscaping	Significant
T34	B 1	Installation of new services in areas of soft landscaping	Significant
T35	B 1	Installation of new services in areas of soft landscaping	Significant
T36	B 1	Installation of new services in areas of soft landscaping	Significant
T02	B 1	Installation of new services in areas of existing hard standing	Negligible
T04	B 1	Installation of new services in areas of existing hard standing	Negligible

4.4.5 In the next section, the impacts listed above are grouped by impact type and discussed in order of their rating. 'High' impacts are addressed first, followed by 'Significant' and then 'Negligible' impacts, where relevant to each impact type and phase. Grouping them this way ensures that all works relating to a specific impact type (e.g., construction of new hard standing in existing grassed areas) are reviewed together, making it easier to compare how similar works may affect different trees in slightly different ways and the implications of this.

4.5 Discussion of impacts on retained trees - Construction Phase

Impact rating: Significant - Applies to: T33, T34, T35, T36

4.5.1 There is a new drainage channel proposed within the root protection of T33, T34, T35 and T36 located within an existing area of soft landscaping. Considering the close proximity of the excavations to the stems of the trees and the requirement for excavations to extend beyond the top 600mm of soil, the potential for significant root damage is significant. Therefore, excavations will need to be carried out using a vacuum excavator, assisted by an air-powered lance and appropriate hand tools.

4.5.2 In this instance, the vacuum excavator will need to be positioned on temporary ground protection if it is to be positioned on existing soft landscaping within the RPA of the trees. This will prevent unnecessary ground compaction during the works.

4.5.3 Root pruning procedures will be guided by the supervising arboriculturist, with the strict intention to avoid the removal of any structural roots greater than 25mm in diameter. This will prevent causing root damage that could cause structural instability. Structural roots are to be retained across the trench, with the services fed beneath the roots.

- 4.5.4 Full details of the above methodology should be detailed within a comprehensive Arboricultural Method Statement, to be used as a working document on site by construction staff.

Installation of new services in areas of existing hard standing.

Impact rating: Negligible - Applies to: T02, T04

- 4.5.5 There is a new drainage channel proposed within the root protection of T02 and T04, located within an existing area of hard standing. Considering the distance from the tree stems and the relatively small areas of the RPA that is affected, the use of a mini-excavator would be considered acceptable. Excavations beyond the depth of the sub-base are also not considered likely to cause any significant root damage.
- 4.5.6 Nevertheless, works should still be carried out carefully, avoiding excavations extending any closer to the trees than absolutely necessary. The mini-excavator is also to be positioned entirely outside of the root protection areas at all times, and all exposed roots will need to be pruned using sharp hand tools appropriate to the task.
- 4.5.7 Providing these measures are implemented effectively and detailed within a comprehensive Arboricultural Method Statement, the impacts to the tree/s will be acceptable and not threaten their long-term retention within the developed site.

4.6 Shading

- 4.6.1 Given the site's proposed use, the impact of shading cast by trees is not an important consideration and does not pose a significant constraint on the site's functionality or usability. As a result, shading can be considered a negligible factor in the site's design and development.

4.7 Tree Pruning

- 4.7.1 The details for any trees requiring pruning works, whether that be for access facilitation or to mitigate any risk, are provided at Appendix 4. Providing that these works are controlled and carried out in accordance with BS3998: 2010 Tree work - Recommendations, then the visual impact of the work will be minimal and will not cause any significant implications for the health of the trees. These works should be included within a comprehensive arboricultural method statement, which will also detail the specifics of protecting retained trees.

4.8 Services and Utilities

- 4.8.1 The installation of new services has been fully considered within the main impact assessment section of this report. As such, the potential impacts on retained trees arising from service installation have already been identified and addressed through the mitigation measures set out elsewhere in this document. If service installation is required within RPAs, then the guidelines within National Joint Utilities Group publication 'Guidelines for the planning, installation and maintenance of utility services in proximity to trees' (NJUG 4, 2007) should be adhered to.
- 4.8.2 Where possible, trenchless techniques should be employed and only as a last resort should a traditional trench be used. If a traditional trench cannot be avoided, excavations should be carried

out under the supervision of a suitably qualified arboriculturist using a 'hand-dig' approach or excavation using compressed air. An air-spade would be one example of this.

4.9 Protection of Trees During Construction

4.9.1 Where construction works are located within and immediately adjacent to Root Protection Areas (RPAs), the RPAs of the retained trees should be protected by tree protection fencing to the specification laid out in BS5837:2012. The area protected by the fencing shall be known as the Construction Exclusion Zone (CEZ). This will be detailed within the arboricultural method statement that includes a tree protection plan.

4.9.2 The method statement will also include the requirement for any ground protection and specialised construction methodologies that may be required to ensure the protection of retained trees. These details will also be included on the tree protection plan.

4.10 New Planting

4.10.1 New tree planting should be appropriate for the future use of the development and not just aim to replace the number of trees that have been removed.

4.10.2 Trees removed as part of the development should be replaced as part of a landscape strategy for the site, in line with local plan requirements, that integrates the development into the surrounding landscape. This should include a mixture of native and ornamental species within planting schemes, where those species are suited to the site and local landscape.

4.10.3 Guidance on how newly planted trees can be successfully grown and planted and flourish in their environment without excessive maintenance can be found in British Standard BS8545:2014 '*Trees: from nursery to independence in the landscape - Recommendations*' (BS8545:2014).

4.10.4 Local government authorities produce local plans and supporting documents which often include area action plans and policies on trees within defined areas. These should be consulted during the landscaping design process. Where appropriate, the design of new tree planting projects should be informed by the responses to community consultation and local interest groups.

4.11 Post Development Management

4.11.1 Retained trees and any new trees planted as part of the final landscaping scheme would benefit from a tree management system. Guidance on the level of tree management required can be found in the National Tree Safety Group publication, '*Common sense risk management of trees*' (NTSG, 2024).

4.12 Conclusion

4.12.1 The development proposals have been reviewed against the existing trees and the impacts assessed within this report.

4.12.2 The development proposals directly require the complete removal of T07 tree and the partial removal of G01. A full breakdown of these trees, along with their quality category, is provided at Appendix 3 and at section 4.3 of this report.

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- 4.12.3** The principal impacts to the retained Category A and B trees, including T33, T34, T35, T36, T02 and T04 as identified in the Arboricultural Report, arise from the proposed drainage works within their Root Protection Areas (RPAs). These impacts will be effectively mitigated through the use of controlled excavation techniques, strict retention and protection of structural roots, and continuous arboricultural supervision. Works will utilise existing hardstanding where possible or temporary ground protection where required, alongside the use of Air Vac excavation methods. Full compliance with the Arboricultural Method Statement will be maintained at all times, ensuring the long-term health, stability and viability of the retained trees are safeguarded.
- 4.12.4** Trees removed as part of the development should be replaced as part of a landscape strategy for the site, in line with local plan requirements, that integrates the development into the surrounding landscape. This should include a mixture of native and ornamental species within planting schemes, where those species are suited to the site and local landscape.
- 4.12.5** Proposals are in accordance with Sheffield City Council's policy, listed at section 3 and the NPPF.
- 4.12.6** The arboricultural impacts associated with the development of the site are considered acceptable and can be mitigated by the protection measures listed within this report, detailed within a comprehensive Arboricultural Method Statement.

5. Recommendations

- 5.1.1** A detailed Arboricultural Method Statement supported by technical drawings should be prepared to detail the protection measures required for retained trees. This should be secured by a Planning Condition, to include auditing tree protection and subsequent reporting to the Council. Details of proposed levels and service routes should be included within the method statement.
- 5.1.2** A landscape proposal should be prepared for the site, to include, where feasible, provision for the planting of a mixture of native, as well as ornamental trees, shrubs and hedges, and implemented as a condition of planning consent.

6. Bibliography

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Appendix 1 - Tree Schedule

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
T01	beech species; Fagus sp.	10	160, 130	3	3	3	3	1 NW	2	Semi- mature	10+	Good	Fair	Growing in brambles and ivy, developing on the stem. Crossed and rubbing unions	None	C 1	19.16	2.47
T02	sycamore; Acer pseudoplatanus	17	810	6	6	6	6	4 W	4.1	Mature	20+	Good	Fair	Growing next/in the wall ivy-clad base has made it hard to seen. Old pruning wounds can be seen on the stem, crossed and rubbing unions, small small- diameter deadwood seen in the crown	Remove ivy and deadwood	B 1	296.69	9.72
T03	sycamore; Acer pseudoplatanus	17	810	6	6	6	6	4 W	4.1	Mature	20+	Good	Fair	Growing next/in the wall ivy-clad base has made it hard to seen. Old pruning wounds can be seen on the stem. Stem splits at 2m into 7 stems, crossed and rubbing unions, small diameter deadwood seen in crown	Remove ivy and deadwood	B 1	296.69	9.72
T04	sycamore; Acer pseudoplatanus	19	670	7	7	7	7	2 W	4.1	Mature	20+	Good	Fair	Growing next/in the wall, brambles around base. Old pruning wounds can be seen on stem, stem splits at 4m and included union seen, crossed and rubbing unions, small diameter deadwood seen in crown	Remove ivy and deadwood	B 1	203.00	8.04
T05	sycamore; Acer pseudoplatanus	19	370, 380	6	6	6	6	1 W	4.1	Early mature	20+	Good	Fair	Growing next/in the wall, brambles around base, unable to access. Stem splits at 1.2m and included union seen, small diameter deadwood seen in crown	Remove deadwood	B 1	127.03	6.36

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
T06	beech species; Fagus sp.	19	400, 270, 150	4	4	4	4	4 W	4.1	Early mature	20+	Fair	Fair	Growing next/in the wall, brambles around base unable to access. Stem splits at 1.2m and included union seen, bark damage seen one of the stems, slight lean on stem	None	B 1	115.32	6.06
T07	field maple; Acer campestre	10	310	3	3	3	3	2 E	2	Semi- mature	10+	Fair	Fair	Growing in hedge, with limited access	None	C 1	43.46	3.72
T08	sessile oak; Quercus petraea	11	210	3	3	3	3	0 SW	2	Semi- mature	20+	Good	Fair	Growing on the edge of the field, on the hill edge	None	B 1	19.94	2.52
T09	silver birch; Betula pendula	14	260, 220, 160	3	3	3	3	2 NE	2.5	Semi- mature	20+	Good	Fair	Growing next to woodland, and the public desire line. The tree splits at the base into 3, with one of the stems growing into the field	None	B 1	64.16	4.52
T10	silver birch; Betula pendula	14	260	3	3	3	3	2 NE	2.5	Semi mature	20+	Good	Fair	Growing on the boundary of woodland on the bank.	None	B 1	30.57	3.12
T11	sessile oak; Quercus petraea	14	260	3	3	3	3	2 NE	2.5	Semi mature	20+	Good	Fair	Growing on the boundary of woodland on the bank.	None	B 1	30.57	3.12
T12	sycamore; Acer pseudoplatanus	14	230	3	3	3	3	2 E	2.5	Semi mature	20+	Good	Fair	Growing on the boundary of woodland on the bank. Brambles growing around the base	None	B 1	23.92	2.76
T13	holly; Ilex aquifolium	7	180	3	3	3	3	0 E	0.5	Semi- mature	20+	Good	Fair	Growing on the boundary of woodland on the bank. Brambles growing around the base	None	B 1	14.65	2.16
T14	sessile oak; Quercus petraea	10	200	2	2	2	2	0 W	0.5	Semi- mature	10+	Good	Fair	Growing on the boundary of woodland on the bank.	None	C 1	18.09	2.40

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
T15	sessile oak; <i>Quercus petraea</i>	10	200	2	2	2	2	0 W	0.5	Semi- mature	10+	Good	Fair	Growing on the boundary of woodland on the bank.	None	C 1	18.09	2.40
T16	sycamore; <i>Acer pseudoplatanus</i>	15	300, 310, 180, 200	3	3	3	3	4 E	4	Semi- mature	10+	Good	Poor	Growing in brambles with limited access. Stems split at 1.3m and included union, seen, crossed and rubbing limbs seen	Crown thin	C 1	116.85	6.10
T17	silver birch; <i>Betula pendula</i>	10	150	3	3	3	3	4 E	4	Young	10+	Fair	Poor	Growing in brambles with limited access, slight lean on the stem.	None	C 1	10.17	1.80
T18	ash; <i>Fraxinus excelsior</i>	10	180	3	3	3	3	4 E	4	Young	10+	Fair	Fair	Growing in brambles with limited access.	None	C 1	14.65	2.16
T19	sycamore; <i>Acer pseudoplatanus</i>	12	300, 310, 180	3	3	3	3	4 E	4	Early mature	20+	Good	Poor	Growing in brambles with limited access. Stems split at 1.3m and included union seen, crossed and rubbing limbs seen	Crown thin	B 1	98.83	5.61
T20	sycamore; <i>Acer pseudoplatanus</i>	14	310, 850	10	10	10	10	2 SE	4	Mature	40+	Good	Good	Growing on the edge of woodland group, stems splits at 0.3m. A good example of species	None	A 1	370.37	10.86
T21	ash; <i>Fraxinus excelsior</i>	14	310, 210, 150, 180	10	10	10	10	2 SE	4	Mature	20+	Good	Good	Growing on the edge of woodland group, stems splits at 0.3m. A good example of the species	None	B 1	88.21	5.30
T22	ash; <i>Fraxinus excelsior</i>	17	240, 230	5	5	5	5	2 NE	2	Early mature	20+	Good	Fair	Growing on the edge of woodland next to the road, tree is growing on small embankment. Old pruning wounds are seen on the roadside. Tree has been crown lifted heavily on one side	None	B 1	49.99	3.99

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m ²)	RPA radius (m)
T23	sycamore; <i>Acer pseudoplatanus</i>	17	420	5	5	5	5	2 NE	2	Early mature	20+	Good	Fair	Growing on the edge of woodland next to the road, tree is growing on a small embankment. Old pruning wounds seen on road side. Tree has been crown-lifted heavily on one side	None	B 1	79.77	5.04
T24	ash; <i>Fraxinus excelsior</i>	18	860	5	5	5	5	4 S	5	Mature	20+	Good	Fair	Growing on the boundary edge located next to road, old pruning wounds are seen around the stem, heavily pruned on the roadside,	None	B 1	334.45	10.32
T25	ash; <i>Fraxinus excelsior</i>	18	340, 310	5	5	5	5	4 NE	5	Early mature	20+	Good	Fair	Growing on the boundary edge located next to the road, old pruning wounds are seen around the stem, heavily pruned on the roadside, split stem at 0.4m	None	B 1	95.69	5.52
T26	ash; <i>Fraxinus excelsior</i>	18	940	7	7	7	7	2 NE	2.5	Mature	20+	Good	Fair	Growing on the boundary edge located next to the road, old pruning wounds are seen around the stem, heavily pruned on the roadside	None	B 1	399.57	11.28
T27	ash; <i>Fraxinus excelsior</i>	18	410	7	7	7	7	2 NE	2.5	Early mature	20+	Good	Fair	Growing on the boundary edge located next to the road, old pruning wounds are seen around the stem, heavily pruned on the roadside	None	B 1	76.02	4.92
T28	pedunculate oak; <i>Quercus robur</i>	23	920	10	10	10	10	2 NE	2.5	Mature	20+	Good	Fair	Growing on the boundary edge located next to the road, a good example of species	None	B 1	382.75	11.04
T29	ash; <i>Fraxinus excelsior</i>	18	200, 120, 140, 170	6	6	6	6	2 SE	2.5	Semi- mature	10+	Good	Fair	Growing on the boundary edge located next to road, old pruning wounds seen	None	C 1	46.55	3.85

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
														around the stem, heavily pruned on the roadside				
T30	ash; Fraxinus excelsior	23	490	10	10	10	10	2 NE	2.5	Early mature	20+	Good	Fair	Growing on the boundary edge located next to road, old pruning wounds seen around the stem, heavily pruned on the roadside	None	B 1	108.58	5.88
T31	ash; Fraxinus excelsior	23	490	10	10	10	10	2 NE	2.5	Early mature	20+	Good	Fair	Growing on the boundary edge located next to the road, old pruning wounds seen around the stem, heavily pruned on the roadside	None	B 1	108.57	5.88
T32	pedunculate oak; Quercus robur	23	920	10	10	10	10	2 NE	2.5	Mature	40+	Good	Good	Growing on the boundary edge located next to road, a good example of species	None	A 1	382.75	11.04
T33	sycamore; Acer pseudoplatanus	25	1040	10	10	10	10	8 SE	8.5	Mature	40+	Good	Good	Growing on grassed area next to the road, small cavity at 1.5meters. Old pruning wounds seen around the stem, with epicormic growth seen from some of these	Remove epicormic growth	A 1	489.11	12.48
T34	sycamore; Acer pseudoplatanus	25	730	10	10	10	10	8 SE	8.5	Mature	20+	Good	Good	Growing on grassed area next to the road, old pruning wounds seen around the stem	Remove epicormic growth	B 1	240.98	8.76
T35	beech species; Fagus sp.	24	560	6	6	6	6	6 E	6	Early mature	20+	Good	Fair	Growing on grassed area next to the road and footpath, Old pruning wounds can be seen on the stem. The tree has been heavily pruned on roadside	None	B 1	141.81	6.72

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
T36	beech species; Fagus sp.	24	570	6	6	6	6	6 E	6	Early mature	20+	Good	Fair	Growing on grassed area next to the road and footpath, Old pruning wounds can be seen on stem. The tree has been heavily pruned on roadside	None	B 1	146.92	6.84
T37	hornbeam; Carpinus betulus	7	110	2	2	2	2	2 SE	2	Young	20+	Good	Fair	Growing on the grassed area next to road and footpath.	None	B 1	5.47	1.32
T38	sycamore; Acer pseudoplatanus	17	420	5	5	5	5	2 NE	2	Early mature	20+	Good	Fair	Growing on the edge of woodland next to the road, tree is growing on small embankment, Old pruning wounds seen on road side. Tree has been crown lifted heavy on one side	None	B 1	79.77	5.04
G01	hazel; Corylus avellana / beech species; Fagus sp. / field maple; Acer campestre / sycamore; Acer pseudoplatanus / ash; Fraxinus excelsior	8	200	3	3	3	3	-	1	Semi- mature	20+	Fair	Fair	Shelter belt, growing in the middle of the field, with brambles around the base on both sides, and wood fence running down the middle of the group. Small diameter deadwood seen	Remove deadwood	B 2	-	2.40
G02	Perny's holly; Ilex pernyi	5	170	3	3	3	3	-	0	Young	20+	Good	Good	Growing on the edge of the field, with brambles located around the base of the group. Trees have dense leaf coverage	None	B 2	-	2.04
G03	hawthorn; Crataegus monogyna	7	100	2	2	2	2	-	0	Semi- mature	10+	Fair	Fair	Growing on the edge of the field with brambles around the base, limiting access	None	C 2	-	1.20
G04	silver birch; Betula pendula	10	110	3	3	3	3	-	2	Semi- mature	10+	Good	Fair	Growing on the edge of woodland and field, the crowns been suppressed by neighbouring trees	None	C 2	-	1.32

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
G05	yew; <i>Taxus baccata</i>	12	320	5	5	5	5	-	0	Semi-mature	20+	Good	Fair	Growing on the edge of woodland, a good example of the species.	None	B 2	-	3.84
G06	yew; <i>Taxus baccata</i> / holly; <i>Ilex aquifolium</i>	12	280	5	5	5	5	-	0	Semi-mature	20+	Good	Fair	Growing on the edge of woodland, a good example of the species. Brambles are located around the base of trees	None	B 2	-	3.36
G07	silver birch; <i>Betula pendula</i>	10	210	5	5	5	5	-	2	Semi-mature	10+	Good	Fair	Growing on the edge of woodland group, laurel around the base of trees.	None	C 2	-	2.52
G08	silver birch; <i>Betula pendula</i> / holly; <i>Ilex aquifolium</i> / pedunculate oak; <i>Quercus robur</i> / hazel; <i>Corylus avellana</i>	12	230	4	4	4	4	-	1	Semi-mature	20+	Good	Fair	Growing as a group next to the edge of the field and woodland. Brambles around the base, trees are competing within the group with neighbouring trees	Thin group taking smaller trees out	B 2	-	2.76
G09	ash; <i>Fraxinus excelsior</i>	10	200	4	4	4	4	-	0	Semi-mature	20+	Good	Fair	Growing on the edge of the field next to the boundary wall, Old pruning wounds can be seen on the stem	None	B 2	-	2.40
G10	bay; <i>Laurus nobilis</i> / beech species; <i>Fagus sp.</i> / sycamore; <i>Acer pseudoplatanus</i> / ash; <i>Fraxinus excelsior</i>	15	220	5	5	5	5	-	0	Semi-mature	20+	Fair	Fair	Growing on the edge of woodland, next to the road, Old pruning wounds can be seen, and the crown has been heavily lifted on the roadside	None	B 2	-	2.64
G11	ash; <i>Fraxinus excelsior</i> / beech species; <i>Fagus sp.</i> / pedunculate oak; <i>Quercus robur</i> / sycamore; <i>Acer pseudoplatanus</i> /	18	270	4	4	4	4	-	0	Semi-mature	20+	Fair	Good	Growing next to the road, the group has old pruning wounds seen around the stem and is heavily pruned on the roadside	None	B 2	-	3.24

Tree/ Group No	Species	height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA (m2)	RPA radius (m)
	hazel; <i>Corylus avellana</i>																	
G12	ash; <i>Fraxinus excelsior</i> / hawthorn; <i>Crataegus monogyna</i>	14	190	3	3	3	3	-	0	Semi- mature	10+	Good	Fair	Growing on the edge of the field next to the road	None	C 2	-	2.28

Appendix 2 - Trees to be Retained and Removed

Remove or Retain	Quality Category	Number of Individual Trees	Tree Numbers	Number of Groups	Group Numbers	Number of Hedges	Hedge Numbers	Number of Woodlands	Woodland Numbers	Total
Remove Entirely	A	0	-	0	-	0	-	0	-	0
	B	0	-	0	-	0	-	0	-	0
	C	1	T07	0	-	0	-	0	-	1
	U	0	-	0	-	0	-	0	-	0
	All	1		0		0		0		1
Remove / Retain in Part	A	N/A	N/A	0	-	0	-	0	-	0
	B	N/A	N/A	1	G01	0	-	0	-	1
	C	N/A	N/A	0	-	0	-	0	-	0
	U	N/A	N/A	0	-	0	-	0	-	0
	All	N/A		1		0		0		1
Retain Entirely	A	3	T20, T32, T33	0	-	0	-	0	-	3
	B	27	T02, T03, T04, T05, T06, T08, T09, T10, T11, T12, T13, T19, T21, T22, T23, T24, T25, T26, T27, T28, T30, T31, T34, T35, T36, T37, T38	7	G02, G05, G06, G08, G09, G10, G11	0	-	0	-	34
	C	7	T01, T14, T15, T16, T17, T18, T29	4	G03, G04, G07, G12	0	-	0	-	11
	U	0	-	0	-	0	-	0	-	0
	All	37		11		0		0		48
Total		38		12		0		0		50

Appendix 3 - Trees to be removed

Tree /Group No	Species	BS Category	Height (m)	DBH (mm)	Reason
T07	field maple; Acer campestre	C 1	10.0	310	To create space for the installation of the Storm Attenuation Tank.
G01 (in part)	hazel; Corylus avellana / beech species; Fagus sp. / field maple; Acer campestre / sycamore; Acer pseudoplatanus / ash; Fraxinus excelsior	B 2	8.0	200	To create space for the installation of the Storm Attenuation Tank.

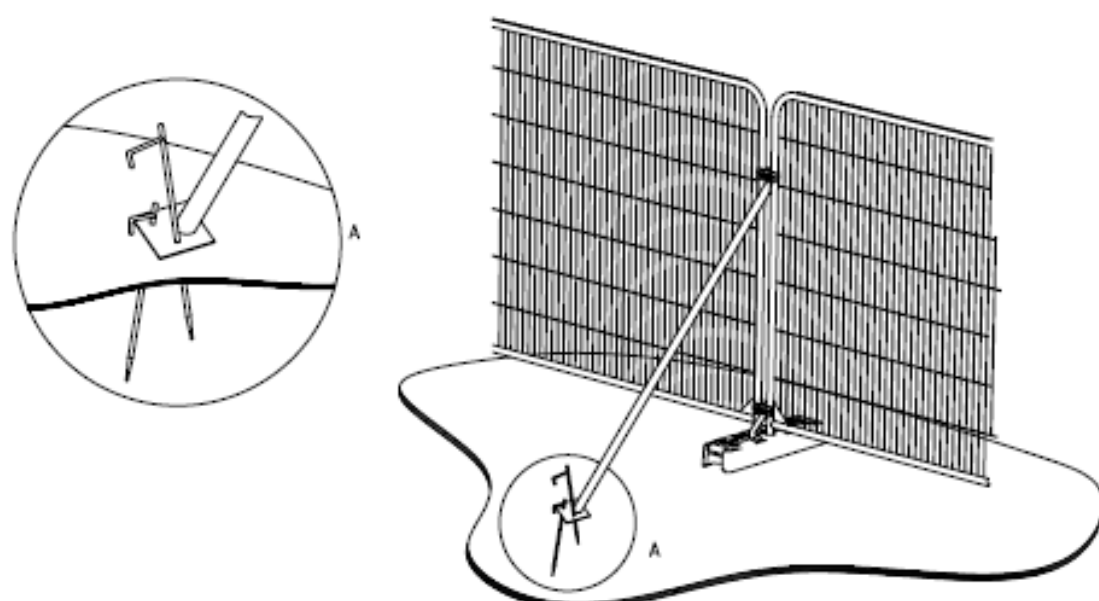
Appendix 4 - Trees to be pruned

Tree /Group No	Species	BS Category	Height (m)	DBH (mm)	Works required
G01	hazel; Corylus avellana / beech species; Fagus sp. / field maple; Acer campestre / sycamore; Acer pseudoplatanus / ash; Fraxinus excelsior	B 2	8.0	200	Lateral reduction of crown by 1-2 meters to create work space.

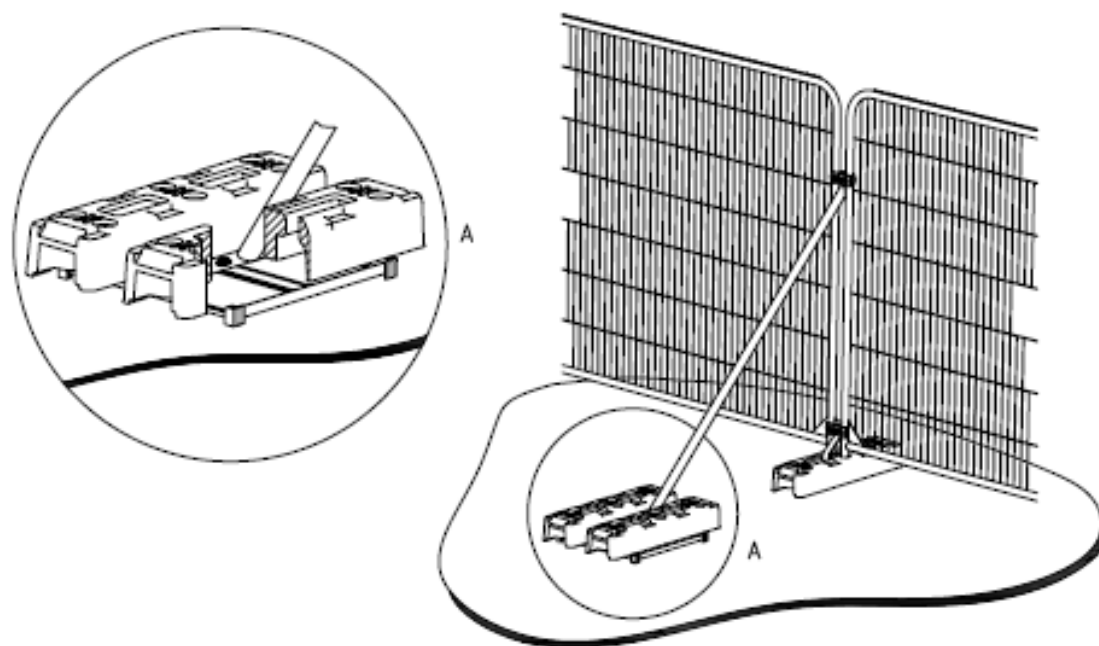
Appendix 5 - Table of Quality Assessment

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 be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have serious, irremediable, structural defects, 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 might be desirable to preserve			DARK RED
	1 Mainly arboricultural values	2 Mainly landscape values	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 of formal or semi-formal arboricultural features (e.g. the dominant and/or principle 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)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

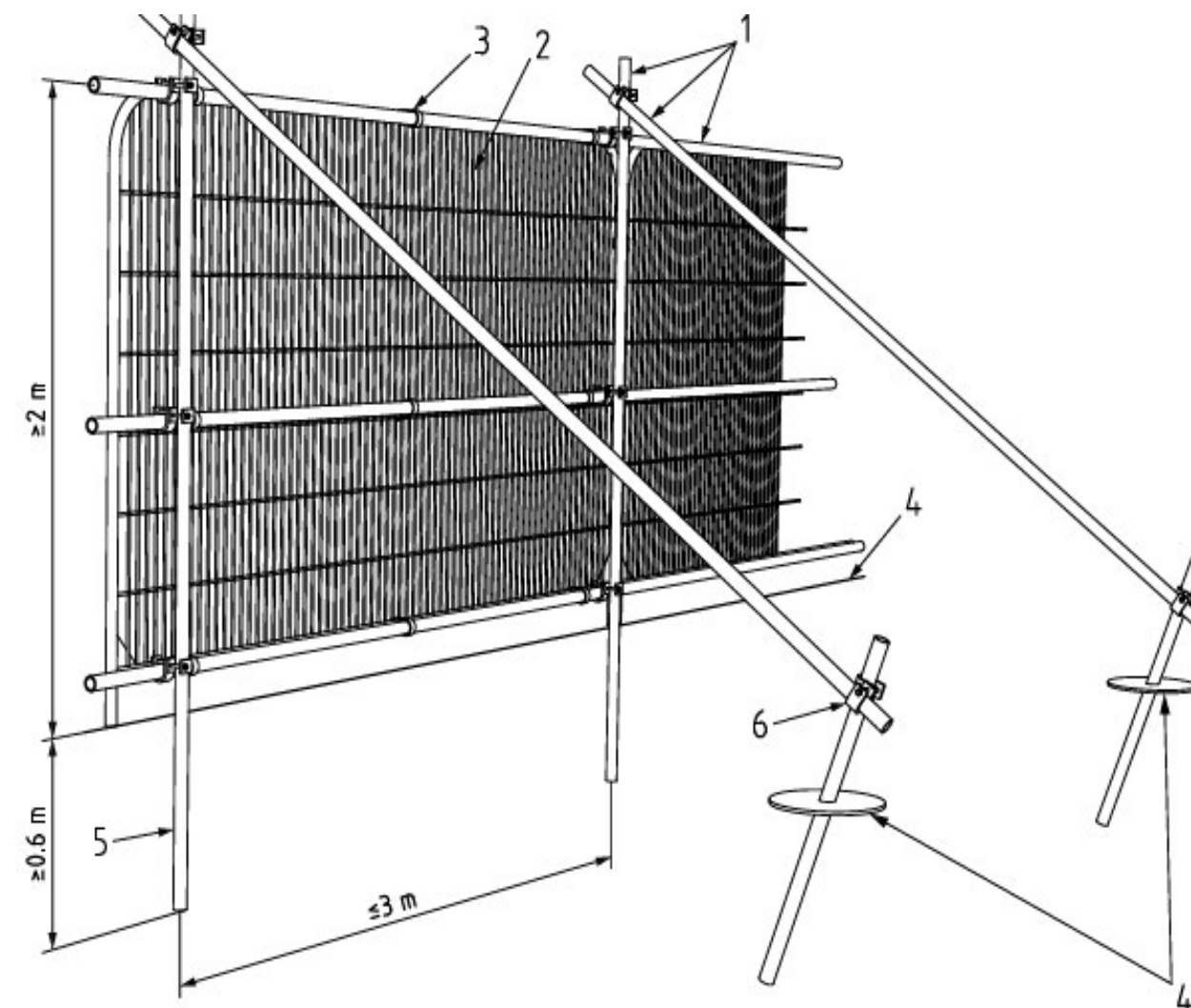
Appendix 6 - Examples of tree protection fencing



a) Stabilizer strut with base plate secured with ground pins

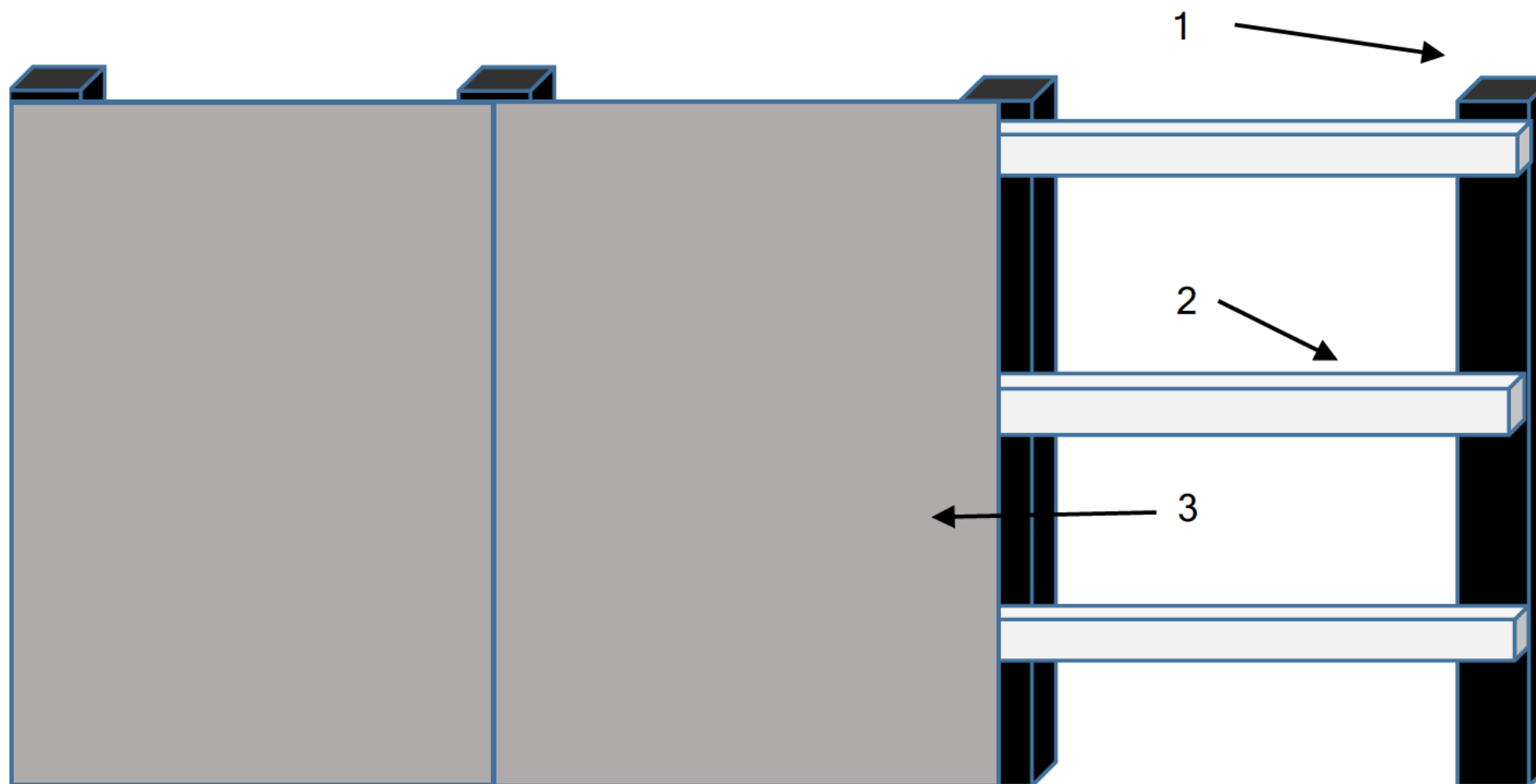


b) Stabilizer strut mounted on block tray



Key

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



1. 100mm x 100mm timber posts at 1.2m centres
2. Three 100mm x 50mm timber rails
3. 12mm WBP Virola hardwood through plywood framed panels

Appendix 7 - Tree Protection Fencing Notice

