



**Arboricultural Method Statement
Baildon Mills, Northgate
Baildon BD17 6JY**

Report Reference: TCC-1211-1
15th March 2019

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Appendices

Appendix 1: Tree Detail & Protection Information

Appendix 2: Tree Protection Plan

Appendix 3: Site Inspection Form

Appendix 4: Signage for Tree Protective Fencing

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1 Introduction

1. This document has been produced following the grant of Planning Permission (Application Number: 18/00994/VOC) dated the 4th December 2018 and more particularly seeks to discharge planning condition 13.
2. An Arboricultural Method Statement (AMS) is often required to ensure the welfare of retained tree cover during the construction phase of development. It is based on the assumption that the minimum general standards for development are those set out in British Standard BS5873:2012 '*Trees in relation to design, demolition and construction*'- *Recommendations*.
3. This method statement is based upon the supporting information that accompanied the planning application.
4. **This document is to be made available to all operatives** on site during the construction process, so that they understand the scope and importance of the AMS. It should also be supplied to any subcontractor prior to their arrival on site. This document sets out the methodology and timing of work necessary to ensure successful tree retention both during and post development.
5. The AMS should be read in conjunction with the Tree Detail & Protection Information at appendix 1 and the Tree Protection Plan (TPP) at Appendix 2.

2 Tree Work

6. Any tree work deemed acceptable by the Council should be carried out prior to any construction activity including the installation of tree protection measures. Tree surgery is easier and more cost effective to undertake with no obstacles. Once development has commenced, this work may become difficult to perform and may restrict construction work. A list of prescribed tree pruning and removal is provided in the supporting tree works schedule.
7. All Arboricultural Contractors should adhere to the following conditions:-
 - All tree work shall be undertaken by a suitably qualified, experienced and insured contractor.
 - In the event of any necessary tree work the contractor will work in accordance with BS 3998: 2010 'Tree Work Recommendations'.
 - The work should be planned to avoid the bird nesting season (1st March-31st August). If works are deemed necessary within this period they must only be implemented if checks have been made to ascertain there are no nesting birds present.

3 Tree Protective Fencing

8. Any tree scheduled for retention will require protection in accordance with BS5837, regardless of its initial retention category. This must be undertaken prior to any work beginning on site.
9. A Tree Protection Fence (TPF) will be erected after the completed tree works but prior to the commencement of any site works e.g. before any materials or machinery are brought on site. The location of the TPF is depicted by blue lines on the TPP and will not be removed or altered other than with the prior agreement of the project Arboriculturist. Once erected all protective fencing will be regarded as sacrosanct. The barriers will create the 'Construction Exclusion Zone' (CEZ).
10. The protective fencing will be appropriate to the extent and proximity of likely demolition and construction works. Unfortunately, due to existing ground constraints including hard surfacing, level changes and the mill pond, it is impracticable to erect the default BS 5837:2012 tree protection fencing. I acceptable to the LPA an adequate level of protection can be provided by 'Heras' type fencing, comprising of welded mesh panels on rubber or concrete feet.
11. The fencing should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The fencing panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins or mounted on a block tray. Where possible pins should be used to anchor the struts into the ground.
12. Once installed the fencing will remain in situ in a good, robust condition until the development is completed.
13. Waterproof signage will be attached to the fencing stating its purpose. The signs will be attached every 5m. An example sign has been included in appendix 4.
14. The fencing will be inspected at regular intervals by the Project Arboriculturist. The findings of each inspection will be documented in the attached assessment sheet located in appendix 3.

15. The diagrams below Figure 3a and 3b of BS5837:2012 consists of 2m tall welded mesh panels on concrete or rubber feet. The panels should be adjoined using anti-tamper couplers and support on the inner by stabilizer struts. The struts should be secured with ground pins (figure 3a) or when erected on hard surfaces block trays should be used (figure 3b).

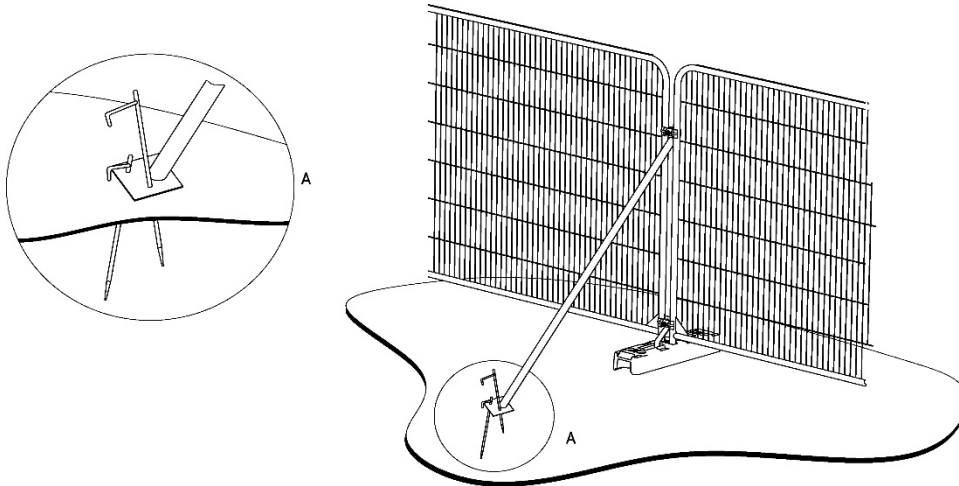


Figure 3a (secured with ground pins) 1

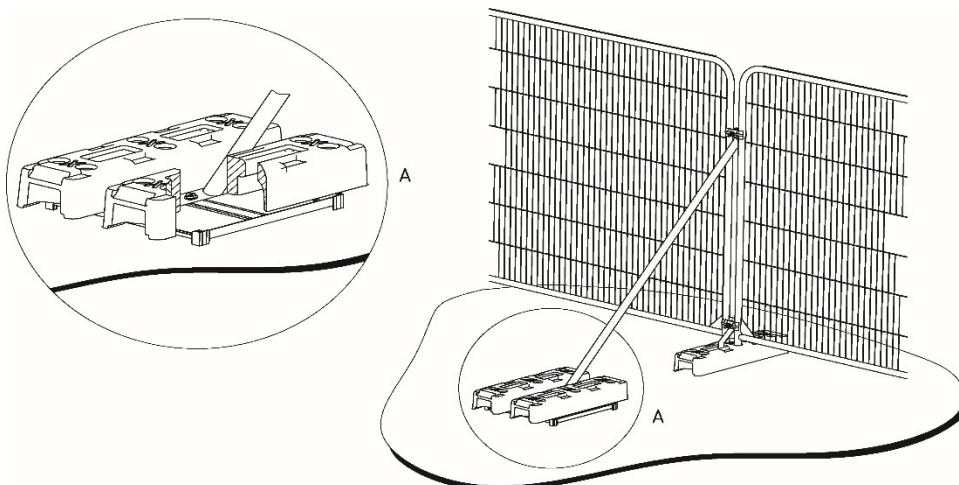


Figure 3b (secured with block tray) 1

16. The following activities may not take place within the CEZ:-

- No trenching, mechanical or manual unless it has been approved by the local planning authority and is supervised by the Project Arboriculturalist
- No vehicle access
- No storage of materials or plant within the CEZ
- No mixing of materials will take place upon a slope where they may leach into the CEZ
- No fires within 20 metres of any tree stem and caution must be given to fire size and wind direction so that no flames come within 5m of any foliage

4 Demolition

17. Following the completion of tree works and installation of Tree Protection the trees highlighted for retention will be adequately safeguarded, allowing demolition work to proceed.
18. The demolition of the existing buildings and several areas of hard surface at the site will chiefly take place within the RPA of the retained off-site trees T10 & T19. This work should not adversely impact on tree health provided it is carried out as follows;
 - Where trees stand adjacent to structures to be removed, demolition work should utilise the 'pull back' technique under the supervision of the project arboriculturist
 - The advice of the project arboriculturist should be sought where underground structures present within the RPA are, or will become, redundant. In general, it is preferable to leave such structures in situ, as their removal could damage adjacent tree roots
 - Where existing hard surfaces and waste material are scheduled for removal, care should be taken not to disturb tree roots that might be present beneath them. Hand-held tools or appropriate machinery should be used to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground.
 - The initial 'breaking up' of any surface may be carried out by low impact pneumatic tools (not breakers attached to diggers or JCB's or only when agreed with the project arboriculturist)
 - Removal of the surface will occur in 2m strips working from undisturbed surface. This will enable any roots exposed to be covered with a good quality top soil in order to avoid desiccation and the ground to be 'made good' as the operation progresses
 - Where practical removal of debris will be carried out by hand with the aid of a wheel barrow. If machinery is required, then a small (1.5 ton) digger may be used providing a bucket with no tines/teeth is used. Once left with manageable size pieces, hand removal will be carried out. Where A digger is employed, it will only travel on the undisturbed hard surface (within the RPA), clearing debris as it progresses out of the RPA.
 - Should any roots over 25mm diameter, have grown above the final soil level and be a hindrance to the final surface installation, their removal will only be carried out under supervision of the project Arboriculturalist and with prior approval from the Local Planning Authority.

5 New Hard Surfacing

19. The proposal requires new hard surfacing within the RPA's of T10 and T15. As demonstrated on plan this area will be constructed utilising a “no dig technique” avoiding root severance and ground compaction. Construction will incorporate a geogrid, porous surface treatment, with surfacing above grade being retained by edging to avoid damaging the trees rooting environment. See Figure 3 below.

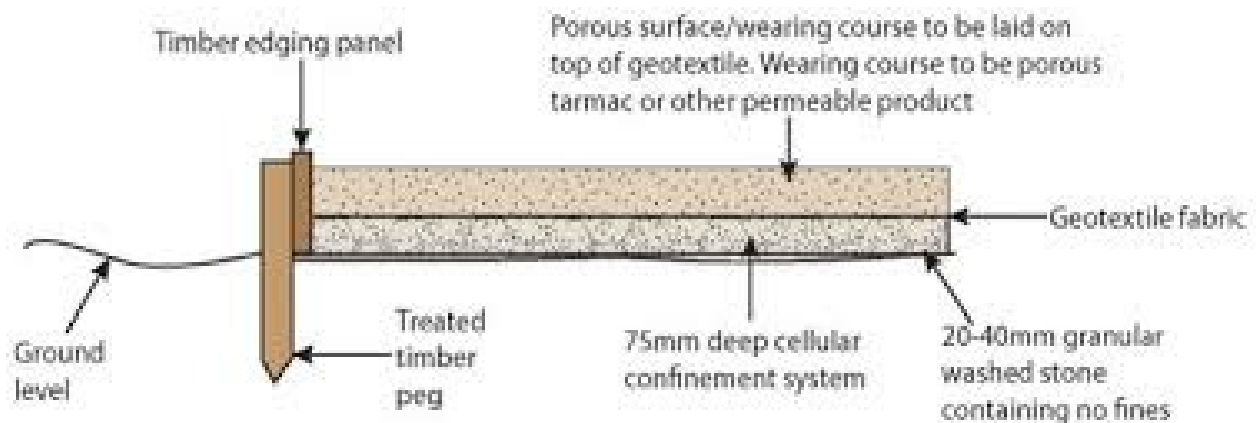


Figure 3. Diagram 'No Dig' Surfacing

20. The work should be completed using the following guidance.
- Clear existing vegetation, and debris using low ground-pressure plant (e.g. Turf cutter or similar), gather up dead organic material to prevent build of anaerobic conditions beneath the construction, which might otherwise occur as vegetation decomposes.
 - Remove major protrusions including large stones by hand. Wherever practicable maximum level drop to be 50mm. Fill any major hollows with sharp sand.
 - Install the non-woven Geotextile membrane directly over sub grade at soil grade level and fix in place. See Figure 4 overleaf.
 - Lay out over the Geotextile membrane and the Cellular Confinement System (CCS) and ensure edges are anchored open during the infill process with steel staples or wooden pegs.
 - Fill the CCS ensuring machinery works only on already filled areas and not the sub grade. Infill with no fines angular granular material 20-40mm.
 - Install a treated peg and board edging directly on top of existing soil grade level. The edging shall be held in place with track or road pins. The edge restraint should then be concealed by localized grading of adjoining ground levels.

- Install a final gas-permeable surface such as gravel or open jointed pavers at the end of the construction phase with a view to minimizing damage to finished surface. To be completed during the final hard landscaping phase.



Figure.4. Example Cellular Confinement System (CCS)

6 Services

21. No new services or soak-a-ways are to be sited or constructed within the RPA of any retained tree. The new services will be connected to existing services as highlighted on the attached TPP. Nevertheless should work within the RPA become necessary due to unforeseen site circumstances this can be undertaken using techniques and methods described at section 4.1 of the current edition of the National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (www.njug.org.uk) or if this is not practicable, trenches are to be opened by compressed air excavation tools and not mechanically dug.

7 Material Storage

22. There is sufficient space for deliveries, material storage and cement mixing utilising the area highlighted on the provided TPP. No material storage will take place around the trees highlighted for retention.

8 Site Supervision & Monitoring

23. The appointed Arboricultural Consultant will be responsible for the monitoring of all operations in relation to Arboricultural issues.
24. Tree protection measures shall be monitored by the appointed specialist who will meet with the contractor and site manager prior to the commencement of development to explain the tree protection requirements and determine if any facilitation pruning is required.

25. The appointed specialist shall submit the completed inspection form (located in appendix 3) with accompanying photographic evidence **on a monthly basis** to the client and site manager.
26. The table below will be completed and signed by the Project Arboriculturist and site manager following the completion of each phase:-

Phase/Work Description	Additional Comments	Date of Completion	Signed Project Arboriculturist	Signed Site Manager
Pre site meeting				
Installation of Tree Protection				
Supervision of demolition work				
Supervision of new hard surfacing within the RPA's				

12 Contact Details

27. The table below has been included to ensure all lines of communication are established prior to the initiation of any work included within this document.

Role	Name	Contact Details
Developer	KMRE	0113 244 1960
Site Foreman	Jerry Bourke	07944755822
Project Architect	Ian Rivington	0113 233 7755
Local Authority Tree Officer	Liz McLaughlin	01274 434297
Project Arboriculturist	Mike Shackleton	07816352028

13 Additional Precautions

28. No notice boards, cables or other services will be attached to any tree.
29. Materials which may contaminate the soil will not be discharged within 10m of any tree stem. When undertaking the mixing of materials it is essential that any slope of the ground does not allow contaminants to run towards a tree root area.
30. Water must be readily available on site and will be used to flush spilt materials through the soil and avoid contamination to tree roots. At the time of any spillage the main contractor will contact the Project Arboriculturist for advice.

14 Landscaping

31. Following the completion of the construction work the tree protective fencing will be dismantled. This will allow for the final landscaping stage.
32. For cultivation purposes the soft landscaping areas will not be rotavated. The soil will be lightly forked, manually hoed and raked to the required tilth. Any planting shall be completed with the use of hand tools and excavation shall be for the minimum extent required for each individual plant. Grassed areas shall be seeded or turfed at the discretion of the appointed landscape contractor.

Appendix 3- Tree Schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)				Crown height+ direction (m)	Life stage	Action/Work Required	Protective Measures	Life expectancy	Retention category	RPA Radius (m)	
				6	5	7	4								
T1	Weeping Willow, <i>Salix chrysocoma</i>	14	1	550	6	5	7	4	5-n	Mature	Remove to facilitate development.	N/A	20 to 40 yrs	B	6.6
T2	Flowering Cherry, <i>Prunus 'Kanzan'</i>	5	1	320	2	1	3	3	2-w	Early-mature	Remove to facilitate development.	N/A	<10 yrs	U	3.8
T3	Myrobalan Plum, <i>Prunus cerasifera</i>	6	6	Ave 200	3	1	2	2	1-w	Mature	Remove to facilitate development.	N/A	10 to 20 yrs	C	5.9
T4	Weeping Willow, <i>Salix chrysocoma</i>	9	1	390	2	2	6	3	2-w	Early-mature	Remove to facilitate development.	N/A	10 to 20 yrs	C	4.7
G5	Ash, <i>Fraxinus excelsior</i>	11	1	Ave 200	See plan				2-w	Semi-mature	Remove to facilitate development.	N/A	10 to 20 yrs	C	2.4
G6	Mixed group containing Elder, Sycamore, Ash, Plum & Apple	7	1	150	See plan					Semi-mature	Remove to facilitate development leaving T7-T9.	N/A	10 to 20 yrs	C	1.8
T7	Mountain Ash, <i>Sorbus aucuparia</i>	5	1	380	1	1	1	1	1-n	Early-mature	Removed deadwood, clear wires by 1m.	Retain and protect with fencing.	10 to 20 yrs	C	4.6
T8	Myrobalan Plum, <i>Prunus cerasifera</i>	5	1	420	3	2	2	3	1-e	Mature	Clear wires by 1m and remove stubs. Crown lift over highway to 5m.	Retain and protect with fencing.	10 to 20 yrs	C	5
T9	Norway Maple, <i>Acer platanooides</i>	5	1	190	2	3	2	2	1.5-e	Semi-mature	Crown lift over highway to 5m.	Retain and protect with fencing.	20 to 40 yrs	B	2.3
T10	Off-site Ash, <i>Fraxinus excelsior</i>	12	2	Est 350 400	5	6	4	5	1-e	Mature	Remove deadwood and large lower limb supported by wall. Consent required from owner.	'No Dig' installation within the RPA to be supervised by the Arboriculturist.	20 to 40 yrs	B	6.4

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Action/Work Required	Protective Measures	Life expectancy	Retention category	RPA Radius (m)
G11	Off-site Goat Willow, <i>Salix caprea</i> & Cider Gum Eucalyptus, <i>Eucalyptus gunnii</i>	8	1	100	See plan				N/A	Semi-mature	No accurate inspection due to location on third party land. Should be removed prior to demolition. Consent required from owner.	N/A	10 to 20 yrs	U	1.2
G12	Leyland Cypress, <i>X Cupressocyparis leylandii</i>	16	1	200	See plan				1-e	Early-mature	Reduce in height by 6m, trim side whilst retaining green growth.	Retain and protect with fencing.	10 to 20 yrs	C	2.4
T13	Common Lime, <i>Tilia X europaea</i>	16	6	400	4	4	4	4		Mature	Remove to facilitate development.	N/A	20 to 40 yrs	B	
T14	Common Lime, <i>Tilia X europaea</i>	16	1	630	4	4	4	4	1.5-e	Mature	Remove to facilitate development.	N/A	20 to 40 yrs	B	7.6
T15	Hawthorn, <i>Crataegus monogyna</i>	6	2	450 250	2	2	2	2	1-n	Mature	No action.	Retain and protect with fencing. 'No Dig' installation within the RPA to be supervised by the Arboriculturist.	10 to 20 yrs	C	6.2
G16	Goat Willow, <i>Salix caprea</i> , Laurel, <i>Prunus laurocerasus</i> & Ash, <i>Fraxinus excelsior</i>	9	1	Ave 250	See plan				N/A	Mature	Remove to facilitate development.	N/A	10 to 20 yrs	C	3
T17	Ash, <i>Fraxinus excelsior</i>	6	1	260	2				3-w	Semi-mature	Remove to facilitate development.	N/A	10 to 20 yrs	C	3.1
G18	Ash, <i>Fraxinus excelsior</i>	6	6	80	See plan				1-s	Semi-mature	Remove end tree nearest to T17.	Retain and protect with fencing.	10 to 20 yrs	C	2.4
T19	Ash, <i>Fraxinus excelsior</i>	12	2	380 400	4	4	4	2	4-e	Early-mature	No action.	Retain and protect with fencing. Excavation work to be supervised by the Arboriculturist.	10 to 20 yrs	C	6.6

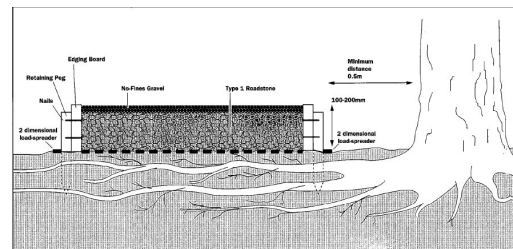
Existing Building to be demolished using 'pull back' technique under Arb Ssupervision

Existing hard surfacing to be removed under Arb supervision prior to resurfacing

Secured 'Heras' type fencing with stabilizing system and fixed central pins (Figure 3b)

Existing hard surfacing to be removed under Arb supervision prior to resurfacing

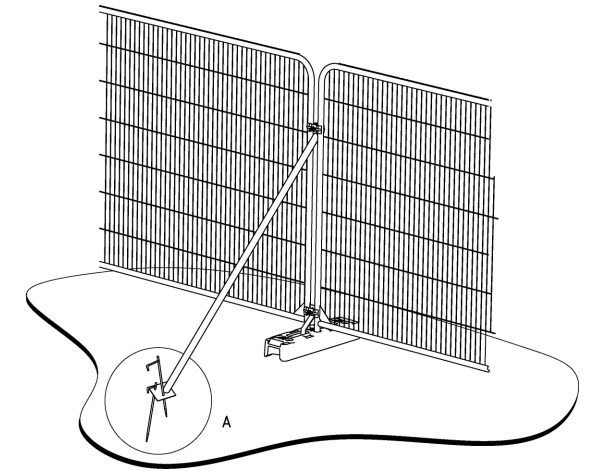
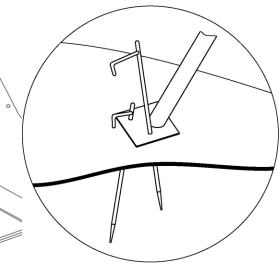
Existing retaining wall to be retained



Specification for 'No Dig' Cellular Confinement Surfacing (refer to AMS for further detail)



Example Cellular Confinement System



KEY

- - Tree to be Retained
- - Tree to be Removed
- - Root Protection Area (RPA)
- ▨ - Exposed RPA
- - Line of Tree Protective Fencing
- ▨ - 'No Dig' Cellular Confinement System

Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Tree Protection Plan
Baildon Mills, Northgate, Baildon, Shipley BD17 6JY

SCALE : 1 : 500	@ A3	DATE : 15/03/2019	N
MAP FILENAME : TCC-1211-1			

Tree Care Consultancy Ltd, Clifton Villa, 37 Hall Cliffe Drive
Horbury, Wakefield, West Yorkshire, WF4 6BY
Phone: 01924 270619, Email: info@treecareconsultancy.co.uk

Appendix 3 - Site Inspection Form

Arboricultural Site Inspection

Site: _____
Application Ref: _____
Developer: _____
Site Agent: _____
Arboricultural Consultant: _____
Date of Inspection: _____ LPA Tree Officer: _____
Accompanied by: _____

Fencing/Ground Protection

In place/intact?	<input type="checkbox"/>	Signs present?	<input type="checkbox"/>
Erected as required?	<input type="checkbox"/>	Any evidence of breach?	<input type="checkbox"/>

Details including action to be taken: _____

Construction Exclusion Zone

Is CEZ to approved dimensions?	<input type="checkbox"/>	Any evidence of damage?	<input type="checkbox"/>
Any evidence within the CEZ of:		Changed soil levels?	<input type="checkbox"/>
Excavations?	<input type="checkbox"/>	Vehicle movement?	<input type="checkbox"/>
Ground contamination?	<input type="checkbox"/>	Fires?	<input type="checkbox"/>
Storage of materials?	<input type="checkbox"/>		

Details, including action to be taken: _____


Any special works potentially damaging to trees proposed for the future?

Any amendments to proposed plans?

Details: _____

Signed: _____ Sent to: (circle) Site Manager, Site Agent, Tree Officer, LPA Officer

Appendix 4 – British Standards Signage



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

(TOWN & COUNTRY PLANNING ACT 1990)

**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**