DEVELOPMENT SERVICES

17 FEB 2010

RECEIVED

Report

on

Tree Survey

at

Former Miners Institute
128 Main Street
Markfield
Leics.
LE67 9UX

February 2010

By

Ed Sharkey Associates
49 Meadow Rise
Barton under Needwood
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Ed Sharkey Associates

Tree Survey Form:

Location: Former Miners Institute, 128 Main Street, Markfield, Leics **Date: 04/01/10**

Species:	Height:	Girth:	Age:
Sycamore (*Acer pseudoplatanus*)	10m	995mm	25yrs +

Setting:

Self set tree adjacent boundary corner in S boundary wall to site. Tree overhangs shed and outbuilding of neighbouring property No. 120 Main Street (see photos 1 & 2)

Recent Cultural Operations:

Branches that have been overhanging neighbouring property have been lopped and brash left on N side of wall, most probably by owner of No. 120 Main Street (see photos 3 & 4)

The Site:

An enclosed area of land to the south of the Miners Institute building. Rough grassland with invasion of stands of Wild Raspberry *(Rubus idaeus)* from NW corner. Stone wall 1.6-2.15m on S boundary separates site from adjacent garden area on No. 120 Main St. Boundary to area of Public Open Space to E of site marked by rudimentary post and wire fence. Boundary to street frontage formed by stone wall 1.6-2.1m with timber double gate in softwood palings.

To the east of the site is a large Horse Chestnut Tree *(Aesculus hippocastaneum)* which is covered by a Tree Preservation Order TPO No. 0801/13/12

Changes to Soils:	Levels:	Excavations:	Compaction:	Other, e.g. chemicals
No recent sign	.Site slopes from 183.62m AOD at street frontage to 181.98 at E boundary (approx 1 in 18)	No recent sign	No recent sign	No recent sign

Symptoms:

General Appearance:

One main stem and a subsidiary fork on N side of canopy at about 2m agl. Canopy fairly evenly developed and of good shape. No evidence of ring barking or other squirrel damage.

Extraneous Matter:

None

Distribution:

Canopy

Fairly evenly developed for a self set tree in an urban location. Most such trees are multi stem from low level and frequently suffer die back in the crown from ring-barking by squirrels. Minor suppression from adjacent self-set Sycamores immediately to E and large Horse Chestnut.

Leaves

Winter survey – canopy bare of leaves.

Shoots

Good extension growth – no physical damage

Bark

No damage to main trunck or evidence of ring barking higher in canopy

Butt:

No evident faults, but part obscured by growth of Ivy at ground level

Root Plate

Root zone obscured by brash and thick covering of Ivy. No heave evident from examination of adjacent wall.

Time of onset of current condition

N/A

Root Condition:

Not examined – but no reason evident for any concern.

Notes:

Tree T1 Sycamore is within the proposed development site boundary and is indicated as having two parking bays extending over its root zone within 1.5m of the tree.

The measure girth of 990mm indicates a BS5837 Tree Root Protection area with a radius of approximately 3.8m, i.e. the RPA extends about half way across the proposed parking bays as indicated on the Tree Survey Plan (ESA Dwg No. 09-04/02)

Trees 2 - Sycamore, 3 - Sycamore, and 4 – Horse Chestnut are outside of the boundary of the proposed development site.

Trees 2 & 3 are self set Sycamores which are of poor form being suppressed by adjacent Horse Chestnut (T4) and larger Sycamore (T1)

Removal of T2 & T3 would enable better, more even development of the canopy of T1.

Ideally the Ivy around the base of T1 should be removed to prevent it growing up into the canopy.

Access could not be gained to the adjacent site to examine the Horse Chestnut T4 in the grounds of The Rectory. However remote viewing from the proposed development site and the area of Public Open Space show it to be a large well, formed specimen tree, albeit growing very close to the 1.5m high stone wall.

There did not appear to be any staining on the trunk suggestive of 'bleeding canker' which is becoming very prevalent on Chestnuts nationwide.

Shoot extension growth seemed good but no other comment could be made on the presence or absence of the Leaf Miner pest which is also now widespread and affecting the health of Horse Chestnut trees.

The height was estimated as 18m and the girth approx 3.5m. This would give a Tree Root Protection area with a radius of approximately 13.4m. Both the proposed parking bays and part of the adjacent turning area lie within the RPA of T4 as indicated on the Tree Survey Plan.

The design of the parking bays area will therefore need to take into account the presence of tree roots and will need to be of a 'no-dig' type of construction designed to accommodate anticipated traffic loads but still allow gas and water diffusion into the underlying root zones.

The parking bays are proposed to be surfaced in 100mm 'Cellweb' (see manufacturer's details in Appendix 4). Any existing vegetation is to be removed and any loose material to a maximum depth of 50mm. Treetex T300 geotextile separation fabric to be laid over area to receive Cellweb. Cellweb 100mm thick to be laid and filled with 40-20mm crushed stone.

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Landscape Architects and Environmental Consultants

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Appendix 1

Tree Survey Classification Criteria

From BS5837: 2005

'Trees in relation to construction'

Table 1 — Cascade chart for tree quality assessment

TREES FOR REMOVAL				
Category and definition	**Criteria**			**Identification on plan**
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	**Criteria — Subcategories**			**Identification on plan**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Those of high quality and value:** in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B **Those of moderate quality and value:** those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C **Those of low quality and value:** currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm	Trees not qualifying 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 screening benefit	Trees with very limited conservation or other cultural benefits	GREY
	NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.			

© BSI 26 September 2005

Appendix 2

Tree Survey Schedule

Client: Fallowells Ltd

Site: Former Miners Institute, 128 Main Street, Markfield, Leics., LE67 9UX

Ref: Job 09-04

Date: 04-Jan-10

Surveyor: ES

Conditions: Frosty, hazy

Tree No.	Species English Name	Species Botanical Name	Height (M) Est.	Stem Dia. (mm)	Age Class	BS 5837 Ret Cat.	Phys. Cond.	Crown Spread (M) Approx.				Comments/ Condition	Recommendations	Priority
								N	E	S	W			
T1	Sycamore	*Acer pseudoplatanus*	10	315	2	A	Good	5	4	6	6	Maturing specimen with broad spreading canopy. In apparently sound condition. Branches overhanging garden of No. 120 Main Street have been pruned back to the boundary line by the neighbour leaving branch 'pegs' which require removing. One subsidiary stem on N side branching at approx 2m agl (see detailed tree survey report form).	Remove 'pegs' left by previous pruning. Clean stem up to 3m agl. Remove Ivy from around bas eof tree.	1
T2	Sycamore	*Acer pseudoplatanus*	10	190	2	C	Fair	2	2	3	2	Part suppressed by 1, 3 & 5. Heavy cover of Ivy	Fell to allow better development of canopy of T1	3
T3	Sycamore	*Acer pseudoplatanus*	10	145	2	C	Poor	2	2	3	2	Part suppressed by 1, 2 & 5. Heavy cover of Ivy	Fell to allow better development of canopy of T1	3
T4	Horse Chestnut	*Aesculus hippocastanuem*	18	1200	3	A	Good	7	5	7	5	TPO Tree 0801/13/12. Mature specimen in good condition.	Protect root zone in the evnt of adjacent development	2
Note: Age Classes: 1 = Young, 2 = Middle, 3 = Mature, 4 = Over-mature, 5 = Veteran														

Appendix 3

Photographs

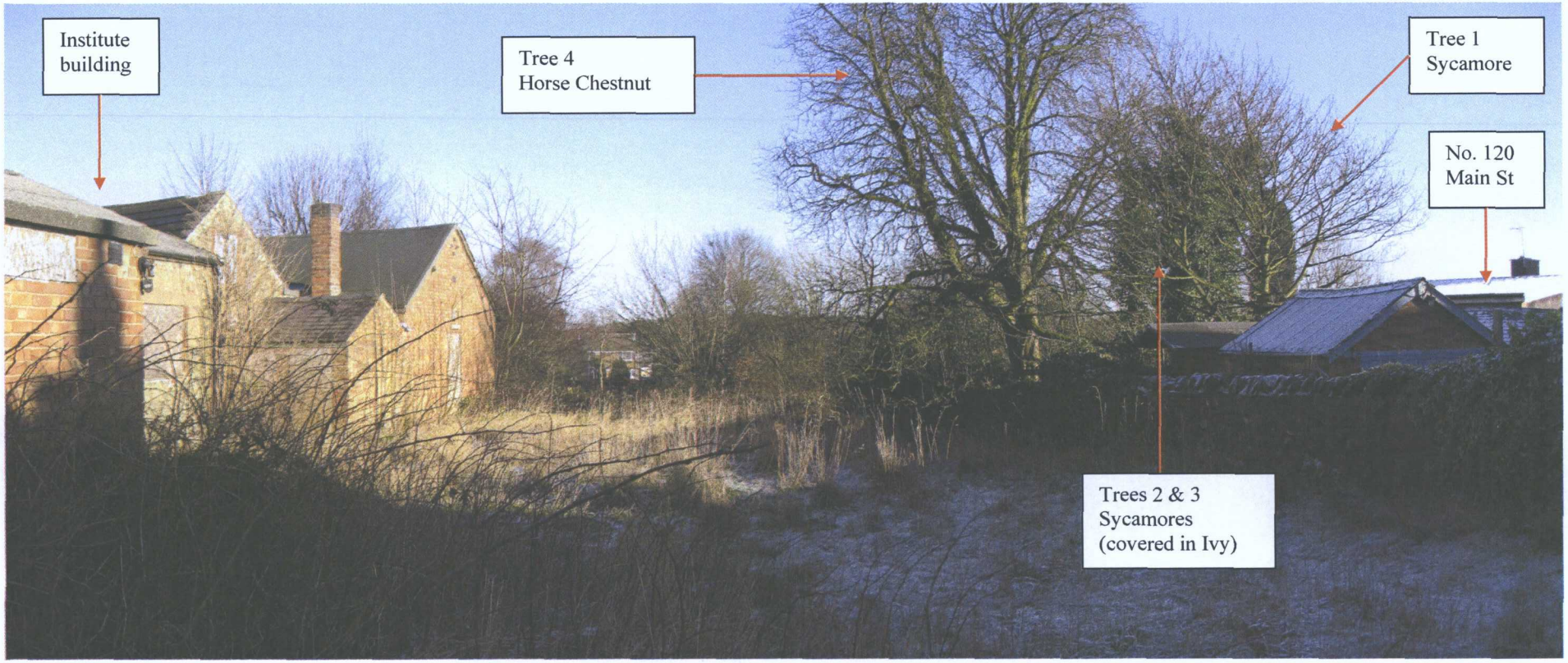


Photo 1 – View E from Main Street boundary

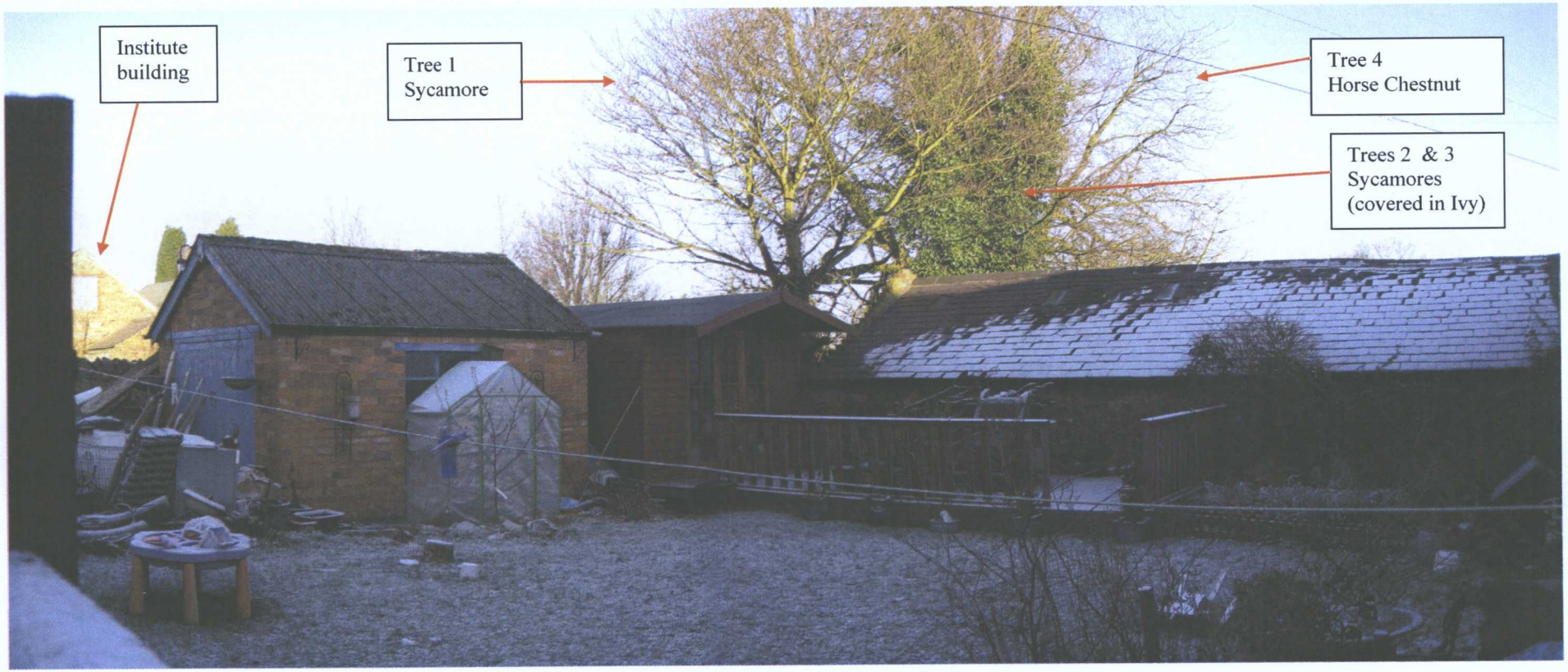


Photo 2 – View NE from garden of No. 120 Main Street

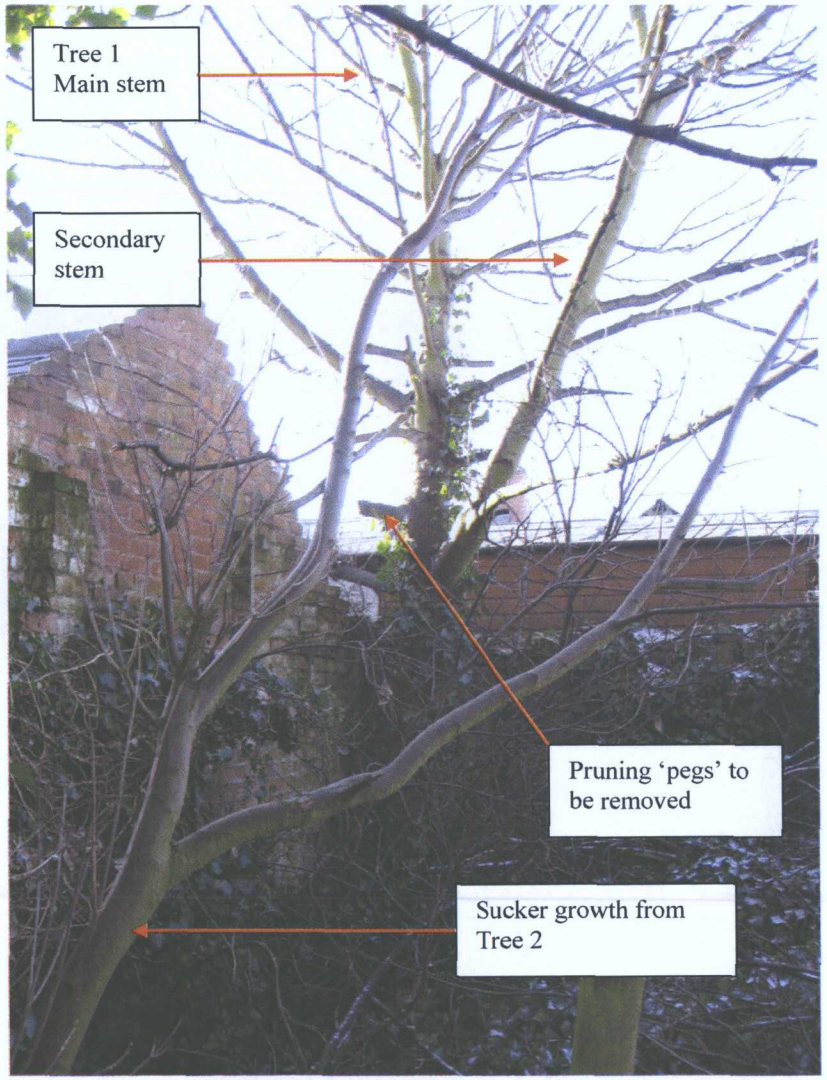


Photo 3 - T1 –Sycamore – view W

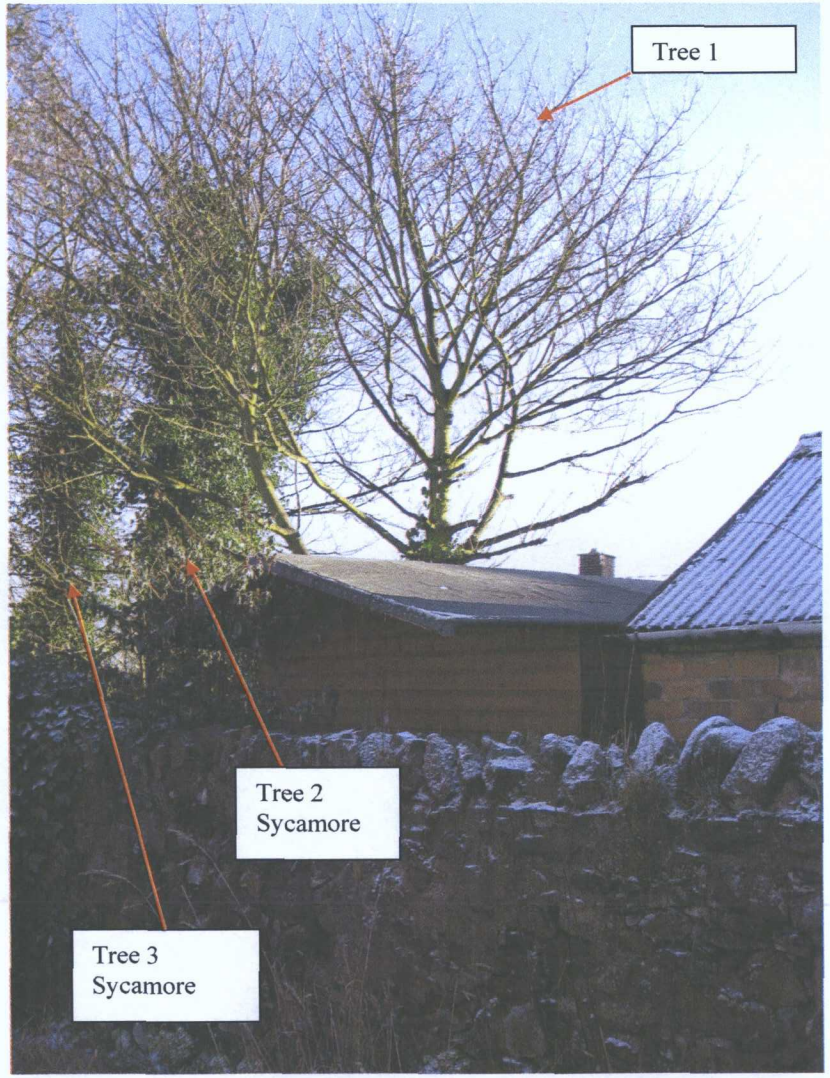


Photo 4 - T1 – Sycamore – view SE from within site

Appendix 4

Product Information

'Cellweb' Tree Protection

CI/SfB

Common Arrangement R12

Uniclass
L81208/L81210

CellWeb

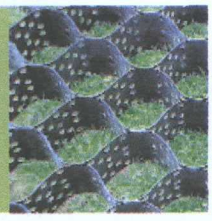


Tree Root Protection System

Geosynthetics

CellWeb

Tree Root Protection System







CellWeb Tree Root Protection System provides a flexible and permeable solution for protecting tree roots while creating a strong stable surface for traffic.



With increased urbanisation and more redevelopments of existing properties, the need to be mindful of the impact on the surrounding environment is more important than ever.

The demand for building site access, driveways and parking around existing trees can have a potentially fatal impact on the tree if carried out incorrectly. Tree preservation orders (TPO's) ensure that trees are not wilfully damaged. However the need for vehicle access over and around tree roots can still cause the following problems:



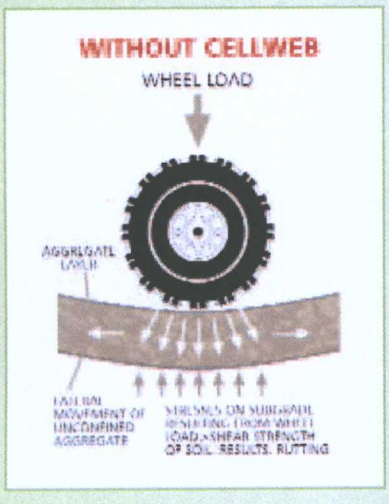
Problems:

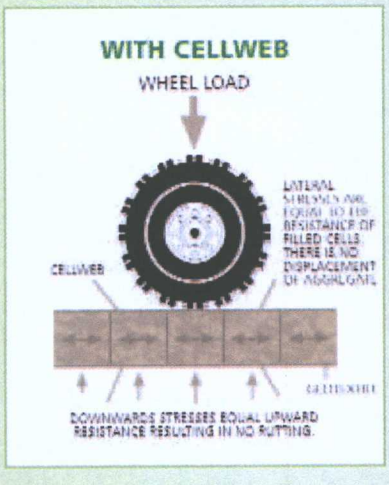
- Compaction of subsoils (especially by construction traffic) causing oxygen and nutrient depletion
- Creating an impermeable surface that prevents water reaching the roots
- Changes in ground level and water table
- Damage caused during excavation
- Contamination of the subsoil

By using CellWeb Tree Root Protection System you can avoid these problems and ensure the tree's long-term future. BS 5837:1991 (revised 2005) and APN 1 provide information for the protection of trees during the construction process, and CellWeb is a well-established solution that conforms to these guidelines.

Product features



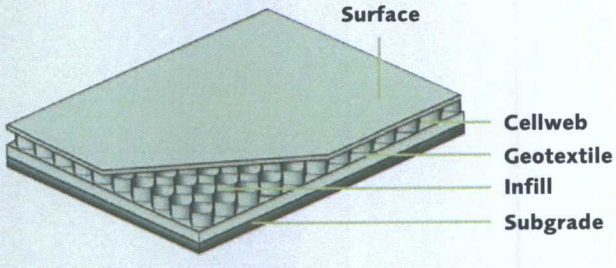




Cellweb's patented design with its unique cellular structure and perforated cell walls reduces the vertical load pressure on tree roots and prevents damage. With clean granular materials as infill, air and moisture can reach the roots to encourage healthy growth.

With no-dig solutions being the preferred option of most Arboricultural Consultants and Tree Officers, CellWeb is ideal as only the surface vegetation need be removed. As well as avoiding disruption to the roots this reduces installation time and saves money.

What's more CellWeb also cuts down the depth required for the sub base – in most cases by 50% for further cost savings. CellWeb also significantly reduces surface rutting, increasing the long-term performance of the finished surface.



Using CellWeb for tree root protection gives you these benefits:

- **Reduced depth of excavation required**
- **Preventing the compaction of subsoils**
- **Preventing oxygen and nutrient depletion**
- **Environmentally sound**
- **Quick, easy and cost-effective installation**
- **Free technical support available**

CellWeb gives you the cost-effectiveness you need at the same time as helping to preserve trees.

Geosynthetics Ltd is a leading dis

Please call
01455 617 139
or email sales@geosyn.co.uk
for further information.

Wide product range

Large stock holding

Next day delivery



Access road for the National Lake District Parks Authority.

Site before construction pictured above.



CellWeb during installation.



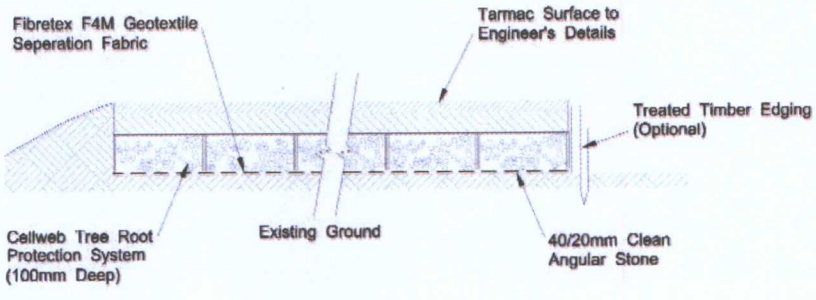
Final surfacing.

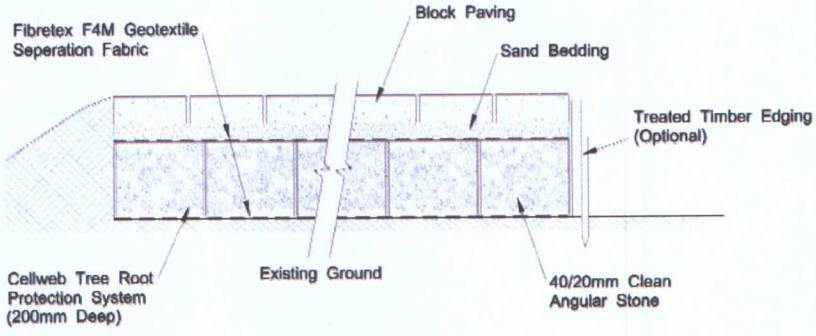
Final surfacing

The CellWeb Tree Root Protection is totally confined within the clean stone sub base, therefore you can choose whichever surface materials are most appropriate for your installation. Some materials are more suitable than others and serious consideration should be given to the porosity of the surface for continued healthy growth of the tree. An ideal surfacing are DuoBlocks: a grass reinforcement and gravel retention system. Geosynthetics can supply these systems for a visually attractive surface that also has the advantage of being fully porous.

Loose or bonded gravels can be used as an alternative hard landscaping and CellWeb can also be used with block paviors whose porous joints will permit moisture and air transfer to the roots. Where planning allows, porous asphalt is yet another possible surfacing treatment.

Call our sales office on 01455 617 139 for more information.





stributor of geosynthetic materials in the UK

Design service

Onsite support

See all products online at geosyn.co.uk

Geosynthetics



Quality assurance

Certified quality

Cellweb™ is manufactured in accordance with an ISO 9001 Quality Management System with perforated walls, and a comprehensive range of cell diameters and depths. The perforated system improves the frictional interlock of infill material giving greater stability and facilitating lateral drainage.

Advice and product selection

Geosynthetics Limited has been supplying the CellWeb Tree Root Protection System for many years and as a result have acquired a vast amount of experience and knowledge. No two contracts are the same, and we understand the factors that need to be taken into account to specify the right CellWeb product for the right situation.

We provide a FREE consultation, design and advisory service to give you the reassurance that your project will be cost-effective and beneficial to existing trees. The service includes product selection, CAD drawings and full installation instructions and will help you from conception stage all the way through to completion.

Call our sales office on 01455 617 139 for specification details and project specific design assistance.

Geosynthetics Ltd is committed to offering the best solutions for soil stabilisation, erosion control, drainage and environmental protection problems.

Well trained staff are always available to discuss which materials are best suited to any particular application.

Technical specification



Product Specifications

Properties	Standard Cell	Large cell
Material	Virgin HDPE	Virgin HDPE
Wall thickness	1.25mm	1.25mm
Seam welding	Ultrasonic to 100% of seam length	Ultrasonic to 100% of seam length
Cell depth	75, 100, 150, 200 and 300mm	75, 100, 150, 200 and 300mm
Width of expanded panel	2.56m	2.56m
Length of expanded panel	8.1m	13.72m
Cell diameter (expanded)	259 x 224mm	508 x 475mm

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Appendix 5

Plans

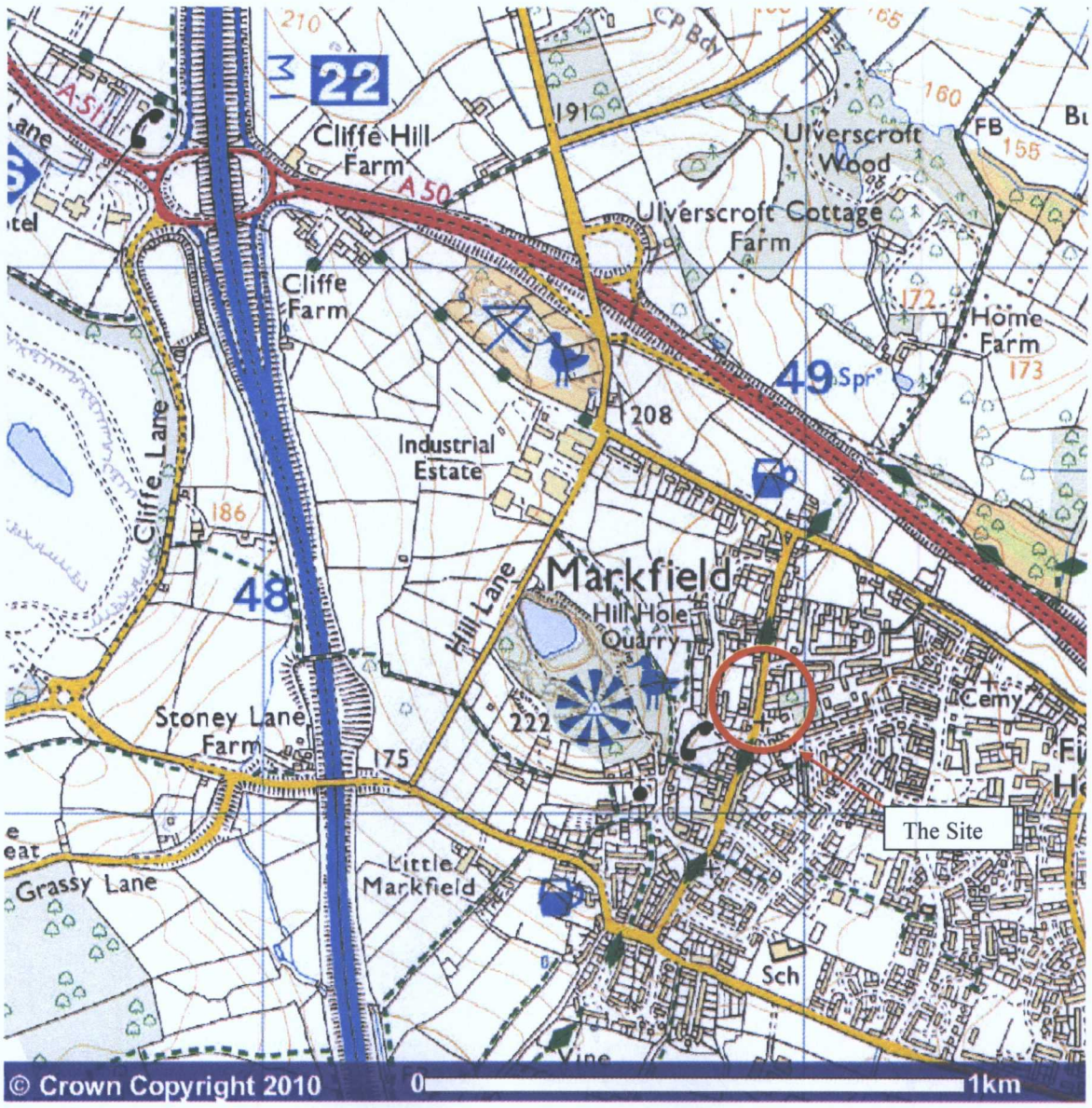
Ed Sharkey Associates

Location Plan

Landscape Architects and Environmental Consultants Tel/Fax: 01283 713124 Mobile: 07973 151820

Project: Tree Survey – Former Miners Institute, 128 Main Street, Markfield, Leics., LE67 9UX		
Client: Fallowells Ltd		
Job: 09-04	**Date:** February 2010	**Dwg No.: 09-04/01**

Location Plan:



Ed Sharkey Associates, 49 Meadow Rise, Barton under Needwood, Burton upon Trent, Staffs., DE13 8DT. Licence No.: AR 35547R0001

Note: Plan based on proposed housing layout

Fallowells Ltd

Tree Survey:
Former Miners Institute, 128 Main Street, Markfield, Leics, LE67 9UX

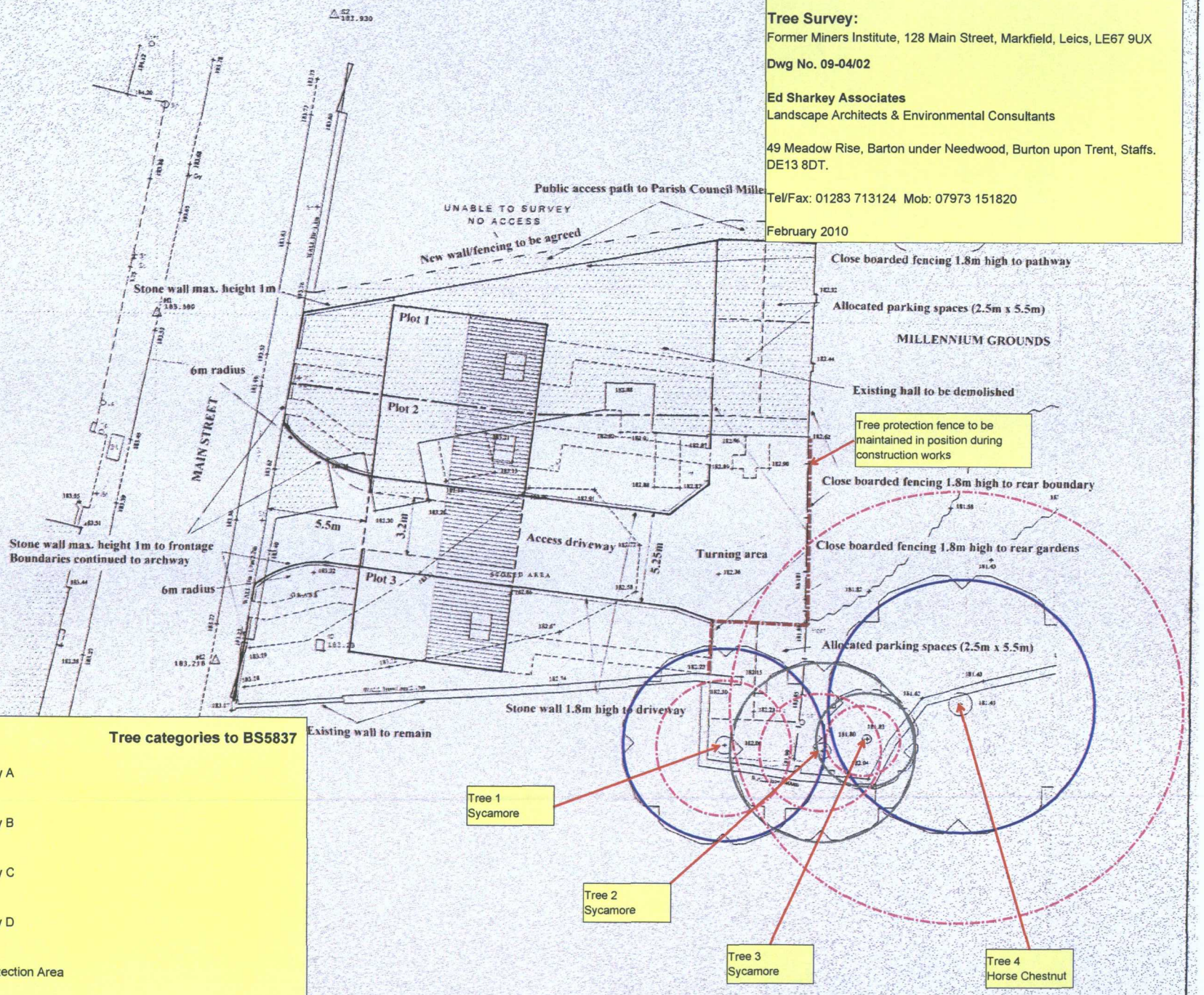
Dwg No. 09-04/02

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Landscape Architects & Environmental Consultants

49 Meadow Rise, Barton under Needwood, Burton upon Trent, Staffs. DE13 8DT.

Tel/Fax: 01283 713124 Mob: 07973 151820

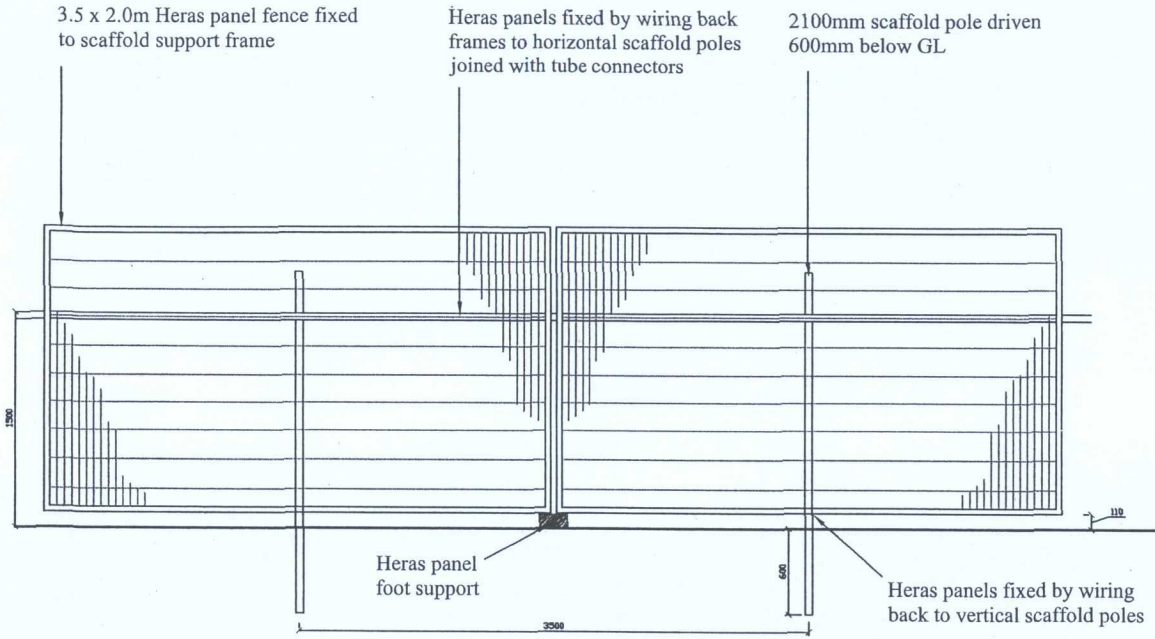
February 2010



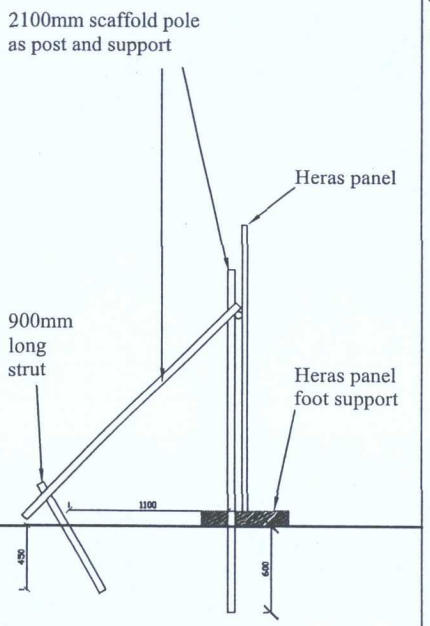
Key:

Tree categories to BS5837

- Category A
- Category B
- Category C
- Category D
- Root Protection Area
- Tree Protection Fence (see ESA Dwg 09-04-03)



Elevation - Scale 1:25



Section - Scale 1:25

Notes:

To be read in conjunction with ESA Tree Survey Report.

Fencing locations shown on ESA Dwg No. 09-04.02

Planning Issue

Do not scale from drawing - if in doubt ask

Rev			

Notes:

Tree protection barriers to be erected before any materials or machinery brought onto site and before any demolition, development or soil stripping commences.

Once erected barriers shall remain in the positions shown on the plans for the duration of the works and shall not be moved or altered without the agreement of the landscape architect and approval of the local planning authority.

No materials shall be stored behind barriers.

Scaffold framing shall use standard 50mm dia. galvanised steel scaffold tube.

Tubes shall be fixed using standard clamps and tube connectors.

Ed Sharkey Associates

Landscape Architects and Environmental Consultants

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Tel/Fax: 01283 713124 Mobile: 07973 151820 E-mail: ed@edsharkey.demon.co.uk

Project

Tree Survey and Report
128 Main Street, Markfield, Leics.

Drawing Title:

Tree Protection Fencing

Drawing No.	Rev	Scale	Date	Drawn	Chk
09-04.03		1:25 @A2	Feb '10	ES	

Computer File No. 2009\09-04\ESA\09-04-03.dwg

Planting Key:

Existing Ivy removed. 35no. Mahonia aquifolium, 3L c.g. pit planted into 200 x 200 mm pits hand dug within tree root zone, with tree planting compost and 50g slow release fertilizer per pit, topped with 75mm bark mulch

Tree root protection area to BS5837

Newton Fallowell Ltd

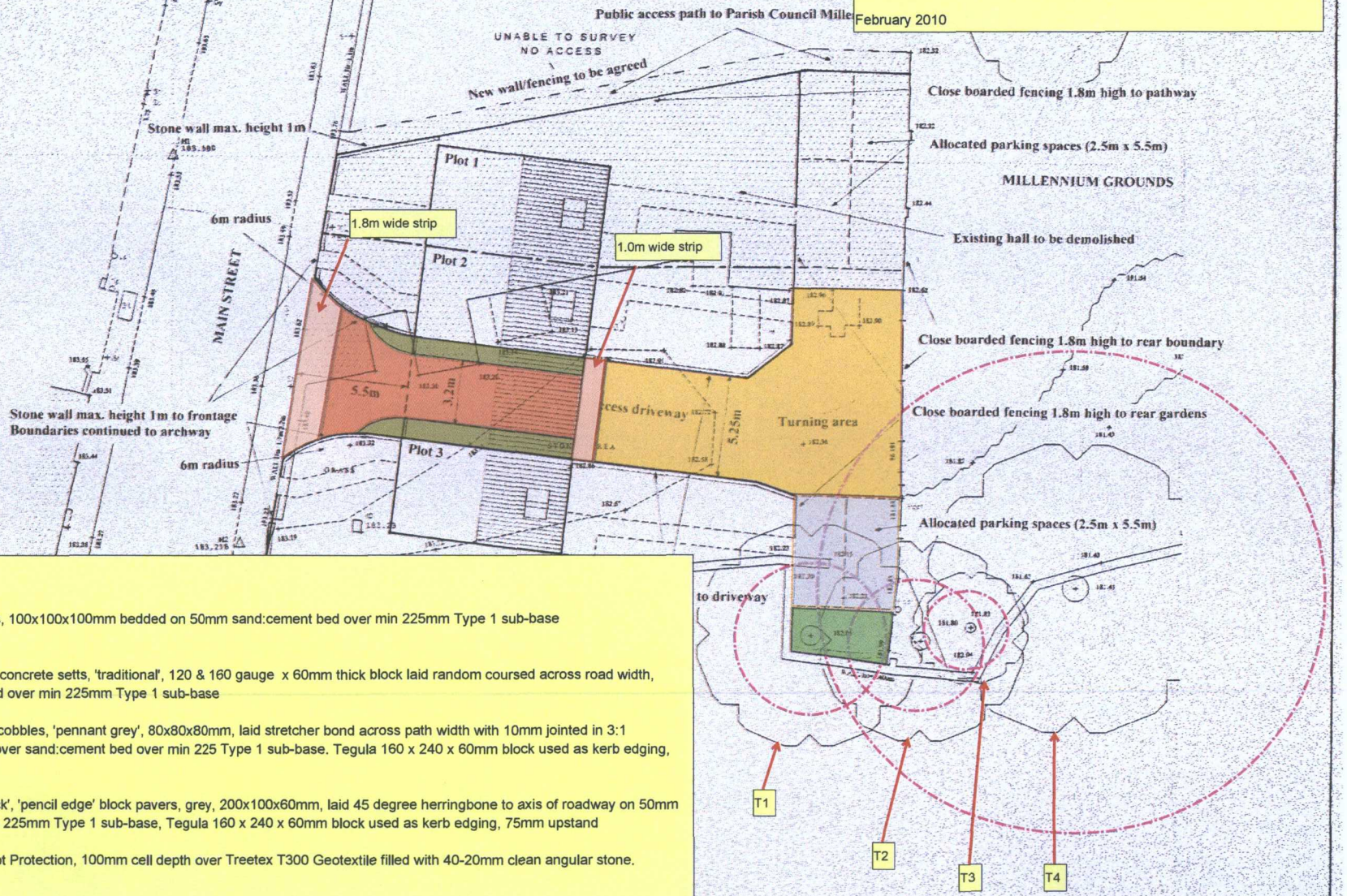
Landscape Proposals:
Former Miners Institute, 128 Main Street, Markfield, Leics, LE67 9UX

Dwg No. 09-04/04

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February 2010



Paving Key:

Natural stone setts, 100x100x100mm bedded on 50mm sand:cement bed over min 225mm Type 1 sub-base

Marshalls 'Tegula' concrete setts, 'traditional', 120 & 160 gauge x 60mm thick block laid random coursed across road width, on 50mm sand bed over min 225mm Type 1 sub-base

Marshals 'Tegula' cobbles, 'pennant grey', 80x80x80mm, laid stretcher bond across path width with 10mm jointed in 3:1 sand:cement mix over sand:cement bed over min 225 Type 1 sub-base. Tegula 160 x 240 x 60mm block used as kerb edging, 75mm upstand

Marshalls 'Keyblock', 'pencil edge' block pavers, grey, 200x100x60mm, laid 45 degree herringbone to axis of roadway on 50mm sand bed over min 225mm Type 1 sub-base, Tegula 160 x 240 x 60mm block used as kerb edging, 75mm upstand

'Cellweb' Tree Root Protection, 100mm cell depth over Treetex T300 Geotextile filled with 40-20mm clean angular stone.