PLANNING SUPPORT STATEMENT

3 New Classrooms with Ancillary Facilities and Hall Extension

at

Brambleside Community Primary School

for

Northamptonshire County Council (c/o Lend Lease)

prepared by

Peter Haddon and Partners Architects

Updated 04 May 2012
Planning Policy Framework

The purpose of this section is to outline the local, regional and national planning policy context for the planning application site. A summary of the relevant policy and guidance is provided below.

National Policy Guidance

National Policy and Government guidance is provided in Planning Policy Guidance Notes (PPG’s) and Planning Policy Statements (PPS’s). We have taken reference from those we believe are relevant to the proposed development and the design of the building extensions and site works take this into account.

The Communities and Local Government National Planning Policy Framework and supporting guidance document sets out criteria for effective and appropriate developments which can be supported by the Local Planning Authority. We highlight some key aspects of the proposed scheme relative to the objectives and aims of the Framework noted above, in support of the proposed application.

- We believe the proposal is to a high standard of architectural design, maximising the benefits of natural light and ventilation whilst respecting the scale, form and materials of the existing buildings.
- The extension to the Hall in particular, improves the provision for possible extended community use, maintaining the role of the school as a focus of the local area.
- The extensions are a result of a specific requirement from increasing pupil numbers (as explained in more detail in a later section) and therefore is critical to maintaining adequate school provision in the surrounding area.
- We have engaged with the local community by way of a public consultation and feedback process to ensure that the project moves forward to satisfy the needs of all, as far as practicable, and the submitted design takes account of all this previous development and refinement (refer to later section for further explanation).
- The project will involve a net increase in the quantity of landscaping and this will reinforce the ability to sustain the ecological environment as well as improving pedestrian routes and a more ‘welcoming’ entrance to the Primary school.
- The buildings have a satisfactory means of access and provide for parking, servicing and manoeuvring in accordance with adopted standards which will remain unaffected.
- The location of the extensions have been carefully considered to minimise the impact on any loss of external playground space (refer to later section for further explanation). No loss of external soft play (grass) space is necessary.
- The proposal maintains the existing footpath and cycle links to the local area (refer to Travel Plan submitted as part of the application)
- We believe the design/location of the building extensions will not result in an unacceptable impact on the amenities of neighbouring properties or the wider area, by reasons of noise, vibration, smell, light or other pollution, loss of light or overlooking.
Regional and Local Plan Policy

North Northamptonshire Core Spatial Strategy sets out criteria for effective and appropriate developments which can be supported by the Local Planning Authority. In particular, we believe the following aspects are relevant to this Application and are responded to by the proposed design namely: -

- To create sustainable communities by ensuring that economic, environmental, social and cultural infrastructure needs are met in step with growth. The expanded Hall facilities offer the opportunity for greater community involvement, together with the provision of some new jobs for teaching staff and support workers relating to the new pupil numbers/classroom provision.
- To ensure that development contributes to an improved environment, by requiring high standards of design and sustainable construction. As stated above, the design respects the form, massing, scale and materials of the existing buildings and includes for natural ventilation (with solar powered boost fans) and maximising natural daylight.
- Kettering is designated as a growth town, with resulting population increase/pupil demand establishing the key criteria for the extension to this school. The expansion of the existing school complex to accommodate this increase is seen to be a sustainable urban design approach, maintaining the green open space and hard play areas. This approach is also developed from practical considerations given the relative small scale of the new build requirements, compared to creating a stand-alone facility on a different site.
- The project supports the objective of providing high quality infrastructure to the strategic towns, by improving the quality and range facilities (both new build and extent of enhancement works within the existing school buildings). In particular, the classrooms will be fitted-out with the latest technology and the Hall will receive a new theatre lighting bar and audio installation.
- Policy 13 identifies further specific points which are listed below with commentary added:
  - Incorporate flexible designs for buildings and their settings, including access to amenity space, enabling them to be adapted to future needs and to take into account the needs of all users. Spaces are designed as simple forms to allow flexibility of future use. The potential to expand the school to create additional classrooms along the front elevation has been considered as part of the long term solution.
  - Seek to design out antisocial behaviour, crime and reduce the fear of crime by applying the principles of the “Secured by Design” scheme. External windows and doors will be to a high security standard, with the perimeter of the building ‘open’ to the pedestrian routes with good visibility from windows. External spaces are generously proportioned with low level planting and isolated trees to create a welcoming atmosphere and avoid dark/enclosed areas.
Design Background

Brambleside Primary School is situated to the North of Kettering Town within a large modern housing development built in the early 1990’s.

The area is characterised by an abundance of modern brick dwellings within cul-de-sac streets typical with this period. The school is situated centrally to this development adjacent to the local playing fields and local community retail amenities. There is excellent access to this area and the school in particular due to the close proximity to the A43 and A14.

The site of the Primary School is not within a Conservation area and the current buildings are not Listed. The school is formed in a linear nature with classrooms off a main central corridor, with the Hall and office areas at the southern end. The single storey buildings have a mono-pitch roof that rise toward the central corridor, providing high ceilings within these communal spaces.

Much of the site is taken up by the existing school buildings and hard standing play areas. The Soft play area predominantly consists of a grassed playing field to the east of the site, with a central linear strip of staff/visitor car parking accessed directly from an existing roundabout on Cleveland Avenue.
The site is not located within an area of potential flood risk, as illustrated on the attached map extract taken from the Environment Agency website.
Statement of Planning Need (provided by Northamptonshire County Council)

This scheme is related to the rising birth rate and the pressures on primary pupil places in Kettering. It is proposed to construct a 3-classroom extension at Brambleside Community Primary School, so that the school’s total pupil roll of 315 will increase to 420. The school’s published admission number (PAN) will therefore change from 1.5 forms of entry (45 per year group) to 2 forms of entry (60 per year group), organising the children into 14 classes instead of the current 11.

The Council’s Capital Strategy 2011-15 makes provision for extra pupil places associated with growth to be a priority for funding from the Department for Education allocations of Basic Need grant. An additional allocation of £1.5m was granted to the authority in November 2011 and this is being used to fund the proposed extension at Brambleside. A budget of £1.25m was agreed with the Capital Investment Board on 21 December 2011 and the scheme was recommended for inclusion in the Council’s capital programme.

Pupil places and admissions

There has been pressure on pupil places in Kettering from a rising birth rate, inward migration and some pockets of housing growth. All Reception places at Kettering primary schools were filled in September 2011 and admissions were managed by offering places at schools in surrounding areas such as Cranford and Burton Latimer. It is anticipated that further Reception places will be needed for September 2012 onwards.

The school will be increasing its PAN from 45 to 60 in September 2012 and will be able to accommodate the extra 15 children in existing classrooms. Building work will need to be completed for September 2013 when another cohort of 60 children start school. A 2 form of entry primary school is more sustainable longer term, with both educational and financial advantages, especially the removal of mixed age classes. The school is oversubscribed.

Scope of Works

The County Council’s property partners, Lend Lease Consulting, have undertaken a detailed feasibility study of the building options and various proposals have been discussed with the school. The scope of works is to include:

- Three new classrooms with associated toilets and storage
- An extension to the Hall to provide a studio and store
- Circulation and break-out space
- An extra office for staff
- Additional car-parking on site
Design Considerations

The primary brief and raison d'être for the scheme is to provide the school with 3 new classrooms with associated storage, to BB99 standards, to allow the school to become a full 2 form entry Primary school. In addition, the project includes provision of a Studio extension to the Hall to provide the school with the necessary additional internal space for sports/drama/assemblies to suit the expanded size of the school. As part of this development, there will be a four new car parking spaces created adjacent to the existing parking area, located within an area that is 'land-locked', therefore maximising car parking spaces without detriment to the existing outdoor recreation space.

Following site visits and discussions with the school, we have explored various options for siting and arrangement of the required new building elements, taking account of the need to reduce the impact of building on the existing playing areas, which is a very important principle of the design. We were informed that the school would adopt a paired classroom structure once they were a full 2 form entry school and we have considered this within our proposed design to ensure this style of class management is achievable, to maximise the learning opportunities for the staff and pupils.

The preferred scheme has been reviewed both at a Public Consultation (see section below for further details) and by the school and key stakeholders, to modify/enhance and ‘fine-tune’ to best suit their requirements. The Planning drawings submitted represent the culmination of this process.

The proposal retains the existing school external play facilities without impacting on the area of these elements, therefore maximising the benefit of any new build space. The proposal creates a series of 3 classrooms set away from the existing school with a generously top-lit functional corridor space between, that will be used for shared teaching break out spaces. The location of these classrooms takes advantage of a redundant area of the site to the front of the existing school. This location for the new classrooms was selected to reduce the impact of the extension, but also to avoid lengthening the school any further by extending at the Northern end which would have led to inefficiency of layout for the school in terms of travel distances from the office / Hall spaces to the new classrooms.

The Studio extension to the Hall stretches towards the boundary line to the southern extent of the school building, but still maintains the pedestrian path at this point. The new Studio is a requirement as stated within BB99 to provide additional recreation facilities for the new 2 form entry school. By creating this next to the existing Hall we have taken the opportunity to allow these spaces to interconnect, when required. The inclusion of a separating folding Acoustic wall between these spaces provides flexibility for the school. The Studio has an additional area of storage and a new Lobby for separate access when both spaces are in use.

The building construction will be designed to exceed the requirements of the Building Regulations in terms of thermal performance and incorporate such environmentally sustainable elements as low energy light fittings and dual flush low water use toilets/taps. There is an opportunity to utilise other renewable energy including air source heat pumps for the space heating and natural ventilation (via roof mounted wind turrets, complete with solar PV powered boost fans) to all new areas. New rooflights and wind-turrets will also be provided to the 2no.
existing classrooms that will become are surrounded by the proposed extension to improve the comfort and internal environment for the pupils.

The elevation design has been developed to be sympathetic to the style of the existing buildings using a palette of robust and durable matching materials in-keeping with the school.

The scale of the proposed extensions takes reference from the existing school. The Studio extension to the Hall follows the same building height and roof slope arrangement. The new classroom extension uses the same roof pitch as the existing classrooms and maintains the same low eaves level to respond to a human scale and that of the Primary school pupils.

To facilitate the classroom extension and following arboricultural and ecological site surveys (reports issued as part of the Planning submission), 5no. small cherry trees have been removed. The project includes for the installation of 10no. cherry trees to reinforce the existing planting and also provide a new avenue when approaching the school entrance. Other low level, low maintenance shrubs/plants will be provided to further ‘soften’ the new building extension towards the car park and public frontage.
Statement of Community Involvement and Consultations

A Public Consultation was held at the School on 14th December 2011. Invitations were issued to school parents, pupils, local residents and parish councillors.

Questionnaire and feedback forms were available to allow comments and possible concerns to be expressed, together with representatives from Northamptonshire County Council, Lend Lease, the School and pHp Architects being present to respond to queries raised and provide accurate information and clarification.

The event was very well supported with approximately 40 people attending.

Generally, the proposed development was felt to be long over due with many parents expressing that they were thrilled that this development was happening. Currently the school runs a split year system of classes which they thought was not the best for their children and welcomed the proposed development.

The position of the new classrooms was deemed to be the correct and most appropriate to avoid negative impact on the existing facilities, when all factors were taken into account.
The creation of additional shared teaching spaces, created through the stepped design of the new classroom orientation, was positively received by the parents and in particular the students and school staff who were excited with the possibility of these additional learning areas.

The proposed Hall extension was seen as a very positive addition for the school. The extra space and possibility to create one large space was commented very positively by parents, teacher and students who attended the consultation.

Some concern was raised regarding what will happen to the students during the build, particularly those in the classrooms that will be refurbished with new rooflights. There have been further, specific discussions with the school as to how impact on the students will be kept to a minimum. It is proposed to decant these 2 classrooms into 2 suitable spaces within the existing school from the start of the new term in September 2012. This will allow the project to be undertaken with limited disruption to the school. Once complete the school will move back into the existing classrooms.

Points were raised regarding the fact that 2no. existing classrooms (along the building perimeter against the new extension) would no longer have outside windows. We have considered this during development of our design and firstly highlighted to the school that the windows are virtually completely covered with children’s drawings/painting or had the blinds down. These classrooms will all be provided with new rooflights that will provide good natural daylight, together with new internal lighting. We have created a new circulation zone between these existing classrooms.
and the new classrooms that will have a series of rooflights to ensure that adequate light and ventilation is maintained, together with high level acoustic windows into these existing classrooms to allow some beneficial borrowed light.
Artistic impression of proposed Studio extension to Hall (wind-catchers not illustrated – refer to elevations).

Sketch section through new Classrooms and existing building
Artistic impression of proposed Classroom extension showing detail of materials to match existing

Artistic impression of proposed Classroom extension showing context with existing building
Brambleside Community Primary School

TRAVEL PLAN

Number on roll: 312
DfES Number: 9282222
Age range of pupils: 4 - 11 years
Number of Staff: 47
Opening Times: 9.00 a.m. – 12.10 p.m. and 1.00 p.m. – 3.15 p.m

Brambleside Community Primary School opened in September 1996. The school was built to ease the overcrowding of school in the north east area of Kettering, a fast growing town in Northamptonshire. The school is located on the Brambleside estate, an urban development. 70% of children live within walking distance of the school with the remaining 26.7% needing to travel to school by means other than foot. Despite this high percentage of pupils living within the immediate vicinity, 43% of children still travel to school by car. Since opening we have always seen safer routes as a priority.

The school is located on Cleveland Avenue, a main road into the estate. The estate is served by a bus route into Kettering, the main town, 2 miles away from the estate. The buses run every 30 minutes. There is a courtyard of small businesses adjacent to the school, a Tesco Express store, a Chinese takeaway, a fish and chip shop, a hairdressers and a public house. The school is not on a direct bus route. There are 3 statemented children, none of which require or are entitled to school transport. Roads surrounding the school are a 30mph zone. Through the work of a Governor, Councillor W. Parker, flashing warning signage and traffic calming measures have been installed in the locality. An ancient right of way to the rear of the school has also been upgraded with tarmac and lighting. Consultations are underway to install a pedestrian crossing on nearby Brambleside; however, this has come up against resident opposition. There are drop kerbs enabling access by the disabled and parents with pushchairs. Kettering is served by a bus railway links and a railway station. Trains to London St Pancras depart and arrive hourly. The train station is 2.8 miles distance from the school.

School times are 9.00 a.m. – 12.10 p.m. and 1.15 p.m. – 3.15 p.m. At the beginning and end of the school day, Cleveland Avenue, Forest Glade and Copperfield Close are congested. For journeys during the school day for school visits or for after school matches we consider carefully safe routes and the importance of the environment. Although we are able to hire minibuses to transport groups of children to local visits, we usually hire just one coach therefore making just two journeys instead of four or six. For after school activities, parents are involved and we run a lift share scheme.
Cleveland Avenue was only adopted in February 2004 and therefore until this time it was not possible to paint zig zag lines outside the school. Since adoption, the school contacted Northamptonshire County Council (NCC) Highways and the area has been painted and completed.

Since the school opened, the governors fought for a footpath to be constructed from the school to the shop area at the rear of the site. This campaign was carried out in full consultation with the Residents Association. There is a large car park in this area which now provides a safe area for dropping off and collecting children from school. We have noticed that since the footpath was completed, parents are using this area and alleviating some of the congestion along with nuisance to local residents. Cleveland Avenue and Copperfield Close have also become far safer routes for those children walking to school; however, they are still a cause for concern.

The children in Year 6 are currently provided with an opportunity to take part in the NCC run Bikeability scheme. Cycle storage is in place. There are 2 disabled parking spaces and 20 staff parking spaces. A number of staff uses the adjacent local amenities car park to park their car and use the footpath into the school grounds. There are no lockers for staff or pupil use at Brambleside Community Primary School.

The school has always worked in close liaison with local residents and the Police. A CCTV camera was purchased by the Residents Association with donations from school to survey the shops area and also part of the school grounds. In 2003 the school site was enclosed with a secure palisade fence. The School Council and Eco Action Team promote Walk to School weeks and cycling through designing pamphlets and posters for display in school and by writing articles for the school newspaper.

The school is let to the local community four evenings a week, all day Saturday and an occasional Sunday. Activities including: yoga, karate, beavers, choir, slimming group, drama theatre group and a church group are available for the local community to participate in. The school is used for celebrations including birthday parties, christening events and religious events by members of the local community. The car park and pedestrian access gates are always open to allow parking on site and on foot access to the school grounds. Community members and stakeholders are very supportive of activities held at the school, particularly with the lack of a community centre on the estate.

Travel Survey

We have taken part in Northamptonshire County Council’s annual Hands Up Survey of pupils’ modes of travel since 1998. 281 pupils were surveyed on 23rd November 2011 through the Hands Up survey. The results are as follows:

Walking to school – 53% (158 pupils)
Cycling – 4% (13 pupils)
Bus – 0% (0 pupils)
Car/Car share – 43% (128 pupils)
By Walking Bus – 0% (14 pupils)
Preferred mode of transport

The children were asked, in the hands-up survey, how they would prefer to travel to school.

Walking to school – 33% (98 pupils)
Cycling - 41% (123 pupils)
Bus – 7% (20 pupils)
Car/Car share –15% (44 pupils)
By Walking Bus – 4% (0 pupils)
Parents Survey

A Parents survey was carried out in December 2011, with all questionnaires being returned by 9th December 2011.

227 questionnaires were sent to families and 65 (29%) were returned.

The questionnaire asked Parents how far they travelled to school.

<table>
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<tr>
<th>How far did you travel to school</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
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<tr>
<td>more</td>
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<td>1-2 miles</td>
<td>8</td>
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<tr>
<td>0-1 miles</td>
<td>53</td>
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</table>

It also asked how they usually travel to school.

How do you usually travel to school

- Bus
- Car share
- By bicycle
- By car
- On foot

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<tr>
<th>How do you usually travel to school</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
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<tbody>
<tr>
<td>On foot</td>
<td>53</td>
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</table>
The questionnaire asked if Parents experienced any of the following problems:

When asked if they would consider a car sharing scheme 18 said no, 5 said yes and 42 said it was not applicable. Parents were also asked if a Park and Walk scheme would help, please see responses below.

The questionnaire gave Parents the opportunity to give details of anything they felt was particularly unsafe, the responses included:

- dropping off on the roundabout in Cleveland Avenue
- cars doing U turns on the roundabout
- Copperfield Close – dangerous parking
- Cleveland Avenue – difficult to cross
- Cleveland Avenue – speeding Parents
- Cleveland Avenue – no crossing
- Brambleside traffic too fast
- Brambleside – difficult to cross
- Forest Glade - dangerous parking
- Tesco car park – very busy
They were also given the opportunity to suggest improvements that could be made to make walking or cycling more attractive, the responses were:

- more lighting in the alleyways around the school
- zebra crossing/lolly pop lady on Brambleside
- zebra crossing/lolly pop lady on Cleveland Avenue
- zebra crossing/lolly pop lady on Carriage Drive
- reward children with respect points/house points for walking as they are respecting their environment
- walking bus
- more cycle/scooter racks particularly at the other end of the school near KS1

**Local Resident Survey**
80 Travel Plan questionnaires were distributed to local residents. 2 replies were received, both detailing problems with parking, congestion and child safety in Copperfield Close.

**Staff Survey**
70 questionnaires were distributed to staff, governors and visitors, 13 (5%) were returned.

The distance travelled to school by staff, governors and visitors is far greater than the distance travelled by the majority of parents and children.
When asked if they would consider a car-sharing scheme the result was:

![Car-sharing scheme graph]

Objectives and Targets

The overall objective of our School Travel Plan is to demonstrate the commitment of the School by reducing the impact of travel to and from the school site on the environment, by encouraging those who have to travel to do so in a more sustainable way.

The main objectives of our School Travel Plan are to provide benefits to:

- Individuals – through improved health, reduced stress and monetary savings
- The school – through healthier and more motivated pupils and staff, reduced traffic congestion on site and improved access to the site for the whole community
- The local environment – through improved local air quality, reduced noise pollution, lower levels of local congestion
- The wider environment – as part of the national and global campaigns to combat more widespread problems, such as climate change and obesity

<table>
<thead>
<tr>
<th>Objective</th>
<th>Targets</th>
<th>Indicators</th>
<th>Timetable</th>
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</thead>
<tbody>
<tr>
<td>Reduce single-occupancy car traffic movement to and from the site</td>
<td>Indicators</td>
<td>Timescale</td>
<td></td>
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<tr>
<td>Percentage of children travelling to school by car will not exceed 37%</td>
<td>6% increase in the number of children walking to school</td>
<td>April 2% September 4% January 6%</td>
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<tr>
<td>Percentage of children travelling to school by cycling or scooter will increase by 6%</td>
<td>% decrease in the number of children travelling to school by car.</td>
<td>2% 4% 6%</td>
<td></td>
</tr>
<tr>
<td>Percentage of staff and governors travelling to school by car to decrease by 6%</td>
<td>% increase in the number of staff walking or cycling to school.</td>
<td>2% 4% 6%</td>
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All pupils to receive 3 hours of road safety education each year | Increase in road safety knowledge, increase in environmental knowledge, increase in children walking to school | 33% | 66% | 100%
---|---|---|---|---
Year 6 children to continue to receive bikeability training | Increase in road safety knowledge, increase in children safely cycling to school | 33% | 66% | 100%
---|---|---|---|---
Increase the number of staff car-sharing by 3% | Decrease in single-occupancy cars, improved car parking spaces | 1% | 2% | 3%
---|---|---|---|---

2.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Reduce pressure on the local road network, particularly at peak times.</th>
<th>Targets</th>
<th>Indicators</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the number of pupils travelling to school by car by 6%</td>
<td>Increase number of children walking/cycling, decrease in traffic</td>
<td>% increase of better travel methods</td>
<td>April</td>
<td>September</td>
</tr>
<tr>
<td>Publicise designated parking areas effectively</td>
<td>More people parking in Tesco and on Cleveland Avenue, less traffic pressure on Copperfield Close</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Encourage more active travel i.e walking, cycling through promotions</td>
<td>% increase of better travel methods</td>
<td>2%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Continue with the development of the Eco travel plan</td>
<td>Children and staff implementing better travel to school ideas for the environment</td>
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</tr>
<tr>
<td>Continue to support the County Council in their requests to the community to install zebra crossings on Brambleside</td>
<td>Safer route to school, increase in number of families walking to school.</td>
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**Monitoring and Review**

The next travel survey will be carried out in September 2013 as part of the Northamptonshire Hands Up survey. The travel plan will be reviewed in 2014. The Headteacher takes responsibility for ensuring that the Hands Up survey is carried out with all children and she will ensure that the travel plan is reviewed.
BRIEF FOR A PROGRAMME OF ARCHAEOLOGICAL OBSERVATION, INVESTIGATION, RECORDING, ANALYSIS AND PUBLICATION OF WORKS AT BRAMBLESIDE COMMUNITY PRIMARY SCHOOL, KETTERING, NORTHAMPTONSHIRE.

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(DRAFT)

Planning Services
Northamptonshire County Council
1 INTRODUCTION

1.1 This Brief is valid for 6 months from the date of issue. If the project it describes is undertaken after that period the Brief should be referred to the County Archaeological Advisor for revision: no work should be undertaken until an updated Brief has been issued.

1.2 Mr Dave Stewart of Landlease has been involved in pre applications discussions with NCC and the County Archaeological Advisor with regard to the archaeological implications of development within the school area. It has been established that the development area is within an area of known archaeological potential. However due to the scale and nature of the scheme the CAA has advised that it would be more appropriate to deal with the proposed development by condition.

1.3 If permission is granted a scheme of archaeological investigation as a consequence of the development will be required.

1.4 The programme of works has to be approved by the County Archaeological Advisor and by the County Planning Authority.

1.5 The Brief provides the basis for archaeological contractors to draw up a Written Scheme of Investigation for the programme of archaeological works, together with an estimate of costs.

1.6 The WSI should conform to the outline contained in Management of Research Projects in the Historic Environment and MoRPHE Project Planning and will contain information on the following:

- the size and qualification of the work force including names and experience of key personnel;
- details of staffing levels and the number of person days to be spent on each specific task;
- details of specialists, including qualifications, who are likely to have input into the project, whether they are in-house or contracted in;
- details of the recording system for fieldwork and post-exavcation analysis;
- a timetable covering the whole project from setting up on site through report writing to deposition of the archive including suitable allowance for bad weather or other unforeseen circumstances, the latter must be clearly indicated.

1.7 The WSI will be submitted to the County Archaeological Advisor of Northamptonshire County Council for vetting to ensure conformity to this Brief before the project can be let.

1.8 Any variation to the Brief or WSI must be agreed with the County Archaeological Advisor before a revised programme of work is implemented.
2. BACKGROUND

2.1 The school sits on the northern side of Kettering within a residential area. The site is surrounded by residential developments to the west, playing fields to the east and south and Cleveland Avenue to the north. The works involve the construction of new teaching blocks and a small car park extension.

2.2 Topographically the site slopes down from north to south ranging in height from 100-95m aOD. It is centred on grid ref SP 8714 8080.

2.3 The works are within the school grounds with areas of grass some of which contains existing trees.

2.4 The geology maps indicate that the site lies within an area of Ooidal Ironstone.

3. ARCHAEOLOGICAL BACKGROUND

3.1 The school sits within the projected extent of Kettering Roman town. The HER suggests that a Roman road runs north to south through the school site.

3.2 The Historic Environment Record contains a record detailing works undertaken in the 1970’s which identified a Roman metalled Road Surface. The proposed development therefore has the potential to contain as yet undiscovered remains possibly associated with the Roman period.

4. OBJECTIVES

4.1 In general the purpose of an archaeological investigation is to determine and understand the nature, function and character of an archaeological site in its cultural and environmental setting.

4.2 The national research context is provided by English Heritage (1991 and 1997) and regionally by Cooper (2006)

4.3 WSI s must include a clear statement of the research aims and objectives for the project derived from the above sources. In particular the aims of the investigation will include:

- establishing the date, nature and extent of activity or occupation in the development site;
- establishing the relationship of any remains found to the surrounding contemporary landscapes;
- recovering artefacts to assist in the development of type series within the region;
- recovering palaeo-environmental remains to determine local environmental conditions as an intrinsic part of the investigation.

4.4 The resulting archive (finds and records) will be organised and deposited in a registered museum to facilitate access for future research and interpretation for public benefit (but please note paragraph 5.9 below).
FIELD METHODS

5.1 A programme of controlled archaeological investigation and recording will be undertaken during the groundworks associated with the new teaching blocks and the car parking.

5.2 Throughout the project the standards set in: Institute for Archaeologists Codes of Conduct and Standards and Guidance documents, English Heritage’s Management of Research Projects in the Historic Environment (2009) and Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation Archaeological Archive Forum (2007) will be adhered to.

5.3 The recording system employed will conform to these standards and will be approved by the County Archaeological Advisor before the project commences.

5.4 The archaeological contractor must be satisfied that all constraints on archaeological fieldwork are identified and appropriate measures to avoid damaging or illegal impacts must be put in place before the project commences; this includes the siting of live services, Tree Preservation Orders, public rights of way, areas of ecological interest and the habitats of protected species.

5.5 The site archive should be organised so as to be compatible with other modern archaeological archives produced in Northamptonshire. Artefacts, environmental and organic material must be labelled, processed and analysed in a manner compatible with the requirements of Archaeological Archives (2007).

5.6 The archaeological investigation will consist of the continuous observation of topsoil and subsoil removal followed by the investigation and recording of any archaeological features that are revealed.

5.7 When archaeological features are encountered they will be investigated and recorded according to the parameters described below.

5.8 Provision must be made for delays caused by the need for archaeological recording and a contingency allowance made for more detailed recording of exceptional finds. The County Archaeological Advisor should be consulted before any contingency allowance is deployed.

5.9 The location of all deposits will be planned at 1:20.

5.10 All relationships between features or deposits will be investigated and recorded. The primary photographic record will normally be compiled in 35mm black and white format. This will be supplemented by 35mm colour slide/print and digital format. The different mediums have their own strengths and the use of a combination presents the best way of ensuring the optimum conditions for the survival of archival records. Further information on digital archiving can be obtained from the Technical Advisory Service for Images and Archaeology Data Service.

5.11 All deposits will be investigated to obtain material for dating and in order to determine function.
5.12 The Project Manager with the County Archaeological Advisor will review the site’s palaeo-environmental potential and, if deemed necessary, specialist advice will be sought. Soil samples will be taken from appropriate dated or undated deposits or from specific industrial features such as kilns and hearths (EH 2002). This will be subject to variation as necessary during the investigation, following consultation with the County Archaeological Advisor and the EH Regional Science Advisor or the project’s palaeo-environmentalist.

5.13 All finds will be cleaned, marked, sorted and analysed in accordance with the approved recording system and the practices and standards described in *Preparation of Archaeological Archives; Selection, Retention and Dispersal of Archaeological Collections* (1993), the IfA Standards and Guidance for the collection, documentation, conservation and research of archaeological materials (2008) and *Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation* (2007).

5.14 Adequate arrangements must be made within a suitable timescale for the conservation of artefacts. Where fragile or unstable finds are recovered appropriate steps must be taken to stabilise them. All conservation, including initial stabilisation must be undertaken by recognised, named specialists.

5.15 Care must be taken in dealing with human remains and the appropriate Department for Constitutional Affairs and environmental health regulations followed. The County Archaeological Advisor and the local Coroner must be informed immediately upon discovery of human remains. Where human remains are encountered as part of the investigation, they should be left in situ and only removed if absolutely necessary. If they are removed, it is essential that the post-excavation assessment contains an analysis of the remains and a statement for the final deposition of the assemblage. The qualified statement must address future research potential, where applicable, and the options for reburial.

6 POST-EXCAVATION

6.1 All post-excavation work will follow the formula laid out in English Heritage’s *Management of Research Projects in the Historic Environment* (2009).

6.2 All records and materials produced will be fully archived. The archive will conform to the standards outlined in *MoRPHE Project Planning*.

6.3 All finds will be cleaned, marked, sorted and analysed in accordance with the approved recording system and the practices and standards described in *Preparation of Archaeological Archives; Selection, Retention and Dispersal of Archaeological Collections* (1993), the IfA Standards and Guidance for the collection, documentation, conservation and research of archaeological materials (2008) and *Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation* (2007).

6.4 All medieval and earlier artefacts should be reported on by a suitably qualified specialist, named in the contractor's method statement or Specification. All Saxon and later ceramics should be classified in accordance with the Northamptonshire Ceramic Type Series.
6.5 When the archive has been consolidated it will be assessed for its potential for further analysis (*MoRPhE Project Planning*). If necessary an Updated Project Design will be prepared outlining a programme of analysis leading to the publication of the results of the project. This will be completed within 3 months of the end of the fieldwork.

6.6 The UPD if required will be submitted to the County Archaeological Advisor for vetting. It will form the basis for a programme of work to be agreed with the County Archaeological Advisor.

6.7 The UPD if required will contain information as outlined in 1.6.

6.8 The agreed programme of work defined by the Updated Project Design will then be undertaken.

6.9 Following English Heritage guidelines a provisional sum based on 75% of the fieldwork costs should be included as budget figure for post-excavation analysis. This will be reviewed when the proposal for analysis and publication has been agreed. Appropriate resources will be made available to enable the agreed programme of post-excavation analysis as defined in the Updated Project Design to be undertaken. The cost of fieldwork covers all work up to and including the preparation of the Updated Project Design if required containing proposals for further analysis and publication (see 6.5)

6.10 A security copy of the archive must be made in an appropriate medium. The cost of the security copy must be included in the project costs.

7 GENERAL

7.1 The fieldwork must be undertaken by a team of recognised competence and experience in this type of project. The project officer in charge of the work should have IfA membership or equivalent experience.

7.2 On-site health and safety procedures must conform to current health and safety legislation; this will include the provision of on-site accommodation and facilities. The chosen contractor must undertake a risk assessment before commencing the fieldwork.

7.3 The appointed archaeological contractor must consult (unless advised otherwise) the Northamptonshire Historic Environment Record with the regard to the archaeological and historical background for the development site and surrounding area before submitting the WSI in order to establish the archaeological context for the project.

7.4 An integrated project archive (including both artefacts/ecofacts and project documentation) should be prepared upon completion of the project. Archaeological contractors should note that there is currently no archaeological archive depository able to accept material from this part of the county, although the issue is being actively addressed and it is hoped that suitable facilities will be available within 3-5 years. Provision should therefore be made for retaining the project archive until such time as a suitable depository is available and arrangements have been made for the transfer of the archive. Provision should be made for the payment of a ‘deposit grant’ at the time of archive transfer towards the costs of archive curation in perpetuity.
The rates and requirements currently employed by archive stores elsewhere in the country and by Northampton Borough Museum for its archive store should be used for guidance.

7.5 The responsibility for monitoring the progress of the project throughout its life, to ensure adherence to this Brief and the maintenance of professional standards is undertaken by the County Archaeological Advisor. So that arrangements for monitoring can be made the County Archaeological Advisor will be notified of the archaeological contractor engaged to undertake the work and be given two weeks notification of the start date of the project in writing. Monitoring requirements will also be included in the project timetable with the agreement of the County Archaeological Advisor. Two copies of the report (one bound ‘hardcopy’, one digital) should be submitted to the County Archaeological Advisor. The digital copy should include both the report text and all illustrations, ideally as a single electronic document. After approval, the report will be passed to the Northamptonshire Historic Environment Record to act as a permanent record of the investigation. Additional copies of the report will be required to support the planning application, and archaeological contractors should confirm the requirements of their client and the County Planning Authority.

7.6 Northamptonshire County Council supports the national stage of the Online Access to the Index of Archaeological Investigations (OASIS III) project and would encourage archaeological contractors to support this initiative. In order that a record is made of all archaeological events within the county occurring through planning systems, the archaeological contractor is requested to input details of this project online at the ADS internet site. The OASIS reference ID should be cleared indicated on any reports.

7.7 It is the policy of Planning Services to ensure that the results of archaeological work in Northamptonshire are made available to the public through a variety of media. The Project Manager is encouraged, therefore, to provide a strategy for site presentation, which would include (where appropriate) the issue of press releases, articles to local and national media, an "open day" for visitors or a parish-based presentation of the excavated remains. All public outreach events must be conducted following consultation with and approval by, the Client. Planning request advanced notice of outreach events and reserve the right to publicise them on our website. In relation to the promotion of archaeological research, Project Managers are requested to provide a short article (where appropriate) for the Planning web site. The main aim of the article is to capture the attention and imagination of the general Northamptonshire public. The articles would ideally contain photographs of recognisable archaeological activity, such as settlement, burial and cultural artefacts.

REFERENCES


Cooper, NJ (ed), 2006, The Archaeology of the East Midlands: an archaeological resource assessment and research agenda, University of Leicester/ English Heritage

ENGLISH HERITAGE (1997) *English Heritage Archaeology Division Research Agenda* (Unpublished draft)


INSTITUTE FOR ARCHAEOLOGISTS (2008 revision) *Standard and Guidance for an archaeological watching brief*

INSTITUTE FOR ARCHAEOLOGISTS (2008 revision) *Standards and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*

Technical Advisory Service for Images Introductory Pack: Image Capture: Hardware and Software available online at [www.tasi.ac.uk](http://www.tasi.ac.uk)

V1 18th January 2012
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ARBORICULTURAL IMPACT ASSESSMENT

Terms of Reference

1.1 This report was requested by Paul Meakins of Wilbytree Surgeons Ltd, Towerfield Farm, Sywell Lane, Ecton, Northampton, NN6 0QT.

1.2 The instruction was to carry out an arboricultural impact assessment to support a Planning Application regarding a proposed development at Brambleside Primary School, Kettering.

Limitations

2.1 The content of this report is valid for a period of one year from the date shown above.

2.2 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

2.3 This is an arboricultural report and as such, no reliance should be placed on comments relating to buildings or soil data.

Introduction

3.1 I carried out my original arboricultural survey at Brambleside Primary School on 19th March 2012 and produced my report number 2203.

3.2 This supplementary report has been commissioned by Paul Meakins to assess the arboricultural impact of the layout.

3.3 For ease of cross referencing, the original schedule detailing specific information on each tree is included at appendix 1. Details of the measurement conventions relating to this are contained in the original report and have not therefore been duplicated in this document.
Proposed Layout Plan

4.1 To facilitate the preparation of this report, a scaled copy of the proposed layout was provided (3978/003). My observations regarding the impact on the trees are based upon this drawing and the locations of the plotted trees within and adjacent to the site.

Protection of Retained Trees

5.1 All felling and pruning operations should be undertaken by an Arboricultural Association Approved Contractor, operating in accordance with British Standard 3998 1998 – Recommendations for Tree Work and other current industry best practice guidelines. This work should ideally be completed and the protective fencing erected prior to any other site clearance or construction work commencing.

5.2 The trees proposed for retention will need to be rigorously protected throughout the development period to avoid them being accidentally damaged. Protective fencing should be erected prior to any work commencing.

5.3 The fencing will need to comprise of 2.4m high scaffold framework supporting exterior grade plywood with a minimum thickness of 20mm, or 2m high heras panels supported by concrete shoes and interlocked to adjacent panels by three clamps. “Protected Trees No Entry” signs will be affixed to every fourth panel. The fencing should remain in place until completion of the construction phase and removed only on the consent of the Local Planning Authority.

5.4 Extreme care will also need to be exercised when removing and reinstating redundant areas of existing hard surfacing within the tree’s rooting zones. Further advice can be provided on these issues once a final layout has been agreed.

5.5 No other site clearance, surface removal or ground level changes should be carried out unless authorised by the Local Planning Authority. This includes storage or dumping of materials within the exclusion zones defined by the protective fencing.

5.6 No materials that are likely to have an adverse effect on tree health should be stored or discharged within 10m of the trunk of a retained tree, nor should fires should be lit within 20m of the trunk.
Arboricultural Impact

6.1 I have made an appraisal of the proposals and their potential impact on the trees. These impacts include removals, proximity issues, surface changes and protection during demolition and construction.

6.2 The following table details the potential conflict that the proposed operations to re-develop the site may create.

<table>
<thead>
<tr>
<th>Tree</th>
<th>Ret Cat</th>
<th>RPA Root Protection Area</th>
<th>Conflict</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 - Prunus</td>
<td>C1</td>
<td>3.5m</td>
<td>Contractor’s compound likely to threaten the long-term health and survival of these trees.</td>
<td>Remove both trees to facilitate the development and replant / maintain suitable replacements upon completion.</td>
</tr>
<tr>
<td>T2 – Prunus</td>
<td>C1</td>
<td>0.9m</td>
<td>Conflict between building footprint and the trees.</td>
<td>Remove the trees to facilitate the development and replant / maintain suitable replacements upon completion.</td>
</tr>
<tr>
<td>T4 – Prunus</td>
<td>C1</td>
<td>1.8m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5 – Prunus</td>
<td>C1</td>
<td>1.3m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6 – Prunus</td>
<td>C1</td>
<td>1.3m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T7 – Prunus</td>
<td>C1</td>
<td>2.2m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T8 – Prunus</td>
<td>C1</td>
<td>2.2m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T9 - Prunus</td>
<td>C1</td>
<td>1.0m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion

7.1 The proposed layout and construction arrangements will either create a direct conflict with the trees, or their retention will hinder development and may result in their long-term detriment.

7.2 It is therefore prudent to remove the trees and replace them with suitable specimens upon completion. Locations for replanting should be agreed and the attached method statement observed to ensure their survival so that amenity and shading provided is long-term.

7.3 Suitable replacement species would be as follows, all size 16-18 heavy standards:

<table>
<thead>
<tr>
<th></th>
<th>Species</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Acer campestre</td>
<td>Field Maple</td>
</tr>
<tr>
<td>3</td>
<td>Sorbus aucuparia</td>
<td>Rowan</td>
</tr>
<tr>
<td>3</td>
<td>Quercus robur fastigiata ‘Koster’</td>
<td>Fastigiate Oak</td>
</tr>
<tr>
<td>2</td>
<td>Sorbus aria</td>
<td>Whitebeam</td>
</tr>
</tbody>
</table>
7.4 The remaining trees on site and on adjacent land will be unaffected by the development proposals provided the attached guidance is followed. The ultimate sizes of retained trees should not cause unwanted shading or dominance of the completed development.

7.5 Prior to commencing any arboricultural work to the trees, it is essential to liaise with the Local Planning Authority as they may be protected by a Tree Preservation Order or within a Conservation Area.

7.6 Any arboricultural work should be carried out by a competent arborist in line with BS3998 British Standards for Tree Work. Should you require details of suitably qualified contractors, the Arboricultural Association maintains a list which is available by calling 01794 368717 or via their website (www.trees.org.uk).

Should you have any questions or require any clarification, please do not hesitate to contact me.

Yours sincerely

Bruce Hatton
Dear Alex

BRAMIBLESIDE PRIMARY SCHOOL - BIRD INSPECTION 28/03/12

To satisfy planning requirements relevant to the above site a nesting bird inspection was undertaken to inform the proposed tree clearance works that are scheduled to take place during the core bird nesting period (i.e. between March and August inclusive). The following report details the outcome of this work:

1. Methodology

In order to assess the presence of nesting birds at the site the features suitable for bird nesting e.g. trees were subject to a period of quiet observation followed by direct searching as required (see survey area/features to be removed at Appendix 1).

The aim of the observational period was to watch for signs of actual nest building, birds with nesting material, adult birds carrying food, territorial activity, etc, that would indicate nesting/breeding in the local vicinity. This then allows for a more focused direct search of trees and other features where bird activity was observed.
2. **Results**

Five small, semi-mature cherry trees were inspected. No active or redundant nests were found during the inspection.

Birds in the local area included house sparrow, greenfinch, collared dove, robin, blackbird and starling. No species were confirmed as breeding in any nearby feature to the proposed works area.

3. **Actions & Recommendations**

No active nests are present at the site and as such works can proceed as planned. It is understood that works will commence today and this is ideal as it is recommended that the trees are felled as soon as possible to reduce the risk of a bird building a nest during the interim period between the inspection and works commencing.

General recommendations are:

- All site personnel to remain vigilant for signs of nesting birds during the works (e.g. persistent adult birds nearby, calling young birds, etc) and report any potential nest sites or concerns immediately.

I trust the above report provides you with all the information you require at this stage.

Yours sincerely,

JAMES R M PATMORE BSc(Hons) CEnv MIEEM CBiol MSB
Senior Ecological Consultant
Appendix 1: Survey area location/trees to be removed
Appendix 2: Photo record
Dear Alex

ECOLOGY SURVEY REPORT: BRAMBLESIDE PRIMARY SCHOOL, KETTERING

It is my understanding that an ecological survey and report is required to support the planning application at the above site.

1. **Background & Approach**

In order to provide an up to date biodiversity baseline assessment of the above site the following tasks were undertaken:

- A site survey to assess the habitat and species present at the site.
- A report detailing the baseline findings and providing necessary recommendations as required
- General biodiversity enhancement advice

2. **Author Details**

I am the Senior Ecological Consultant with Lockhart Garratt Ltd and have over 9 years of professional consultancy experience. I am a Chartered Environmentalist and Chartered Biologist and also hold full professional membership with the Institute of Ecology and Environmental Management and the Society of Biology. I also hold three active survey licenses for European Protected Species groups including bats (all species), great crested newt and dormouse.
3. Site Survey

The site survey was conducted on Wednesday 28th March 2012 and included a walkover of the site to record key habitats and search for signs of and potential for protected and notable species. The weather was sunny and clear with a temperature of 10°C.

Habitats at the site were mapped to JNCC Phase 1 habitat survey standard.

4. Results

i) Habitats

The site survey plan and photo-record are presented at Appendix 1 and 2.

Amenity Grassland

Areas of grass verge are present on site and include a short mown sward of amenity grasses (e.g. rye grass *Lolium* spp, fescue *Festuca* spp and bents *Agrostis* spp). Occasional forbs include daisy *Bellis perennis*, dandelion *Taraxacum officinale* and ribwort plantain *Plantago lanceolata*.

Hardstanding and Buildings

A large proportion of the site is dominated by hardstanding (including paths, road and car park) and buildings.

Introduced Scrub

A small strip of cotoneaster is planted along the face of the building on site.

Scattered Trees

A number of young and semi-nature ornamental cherry *Prunus* spp are planted in rows and groups on amenity grassland.

ii) Species

No protected or notable species issues were identified with the above habitat features during the survey.

Local bird observation around the study area include blackbird *Turdus merula*, robin *Erithacus rubecula*, collard dove *Streptopelia decaocto*, house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and green finch *Carduelis chloris*. 
5. Evaluation

i) Habitats

The site lacks significant habitat features and is dominated by habitat of low ecological value. No mature trees or structured grassland is present and generally the habitats to be lost would not constitute significant biodiversity impacts in the local area.

ii) Species

No protected or notable species issues have been identified at the site due to the low value habitats being impacted upon.

A bird inspection was conducted on 28th March 2012 ahead of tree clearance and no signs of nesting birds were encountered in the five cherry trees to be removed.

6. Conclusions and Recommendations

In general the site supports only limited ecological value in its current state and as such the proposed development would not have an adverse effect on key ecological receptors (e.g. protected species, sites of nature conservation importance, locally notable species etc).

However, to ensure that the proposed works have the minimal effect on local biodiversity the following will be required:

- Although no signs of nesting birds were encountered during the site inspection it is recommended that site staff remain vigilant for signs of bird nesting nearby. An ecologist should be contacted should site staff have any concerns.
- A number of trees are to be removed and it is noted that replacement trees are proposed. These replacement trees should be of native species/variants of natives and ideally specimens as large as feasibly possible to provide immediate biodiversity gain.
- Where possible other biodiversity benefits should be considered and discussed with the school e.g. a green wall section, installation of bird boxes and bug boxes on the building etc.

Yours sincerely,

JAMES R M PATMORE BSc(Hons) CEnv MIEEM CBiol MSB
Senior Ecological Consultant
Appendix 1: Survey area location/Site proposals
Appendix 2: Phase 1 habitat plan

Amenity Grassland

Scattered Tree
Appendix 3: Photo record
ARBORICULTURAL METHOD STATEMENT

Terms of Reference

1.1 This Arboricultural Method Statement was requested by Paul Meakins of Wilbytree Surgeons Ltd, Towerfield Farm, Sywell Lane, Ecton, Northampton, NN6 0QT.

1.2 It has been compiled to aid the protection of trees to be retained at Brambleside Primary School, Kettering. Implementation of the protection methods and specialist construction detailed here are integral to achieving this goal.

1.3 The information contained within this Arboricultural Method Statement is in line with BS5837 : 2005 ‘Trees in relation to construction – recommendations’.

1.4 This method statement is to be made available to all operatives on site during the construction process, so that they understand the scope and importance of the measures set out for tree protection.

Phasing & Monitoring of Development

2.1 Phasing is governed by operational constraints and therefore subject to change. The project’s arboriculturalist must be notified of any changes to this schedule.

2.2 Phase 1 – Pre-development stage

2.2.1 Pre-commencement site meeting between LPA, client and arboriculturalist
2.2.2 Tree removals/pruning of trees directly impacted by the development
2.2.3 Tree removals/pruning of trees indirectly impacted by the development
2.2.4 Tree protection measures implemented
2.2.5 Site inspection by arboriculturalist
2.3 Phase 11 – Development stage

2.3.1 Site accessible to construction traffic
2.3.2 Site compound / WC / materials
2.3.3 Groundworks and services
2.3.4 Development
2.3.5 Completion of development
2.3.6 Site inspection by arboriculturist

2.4 Phase 111 – Post development stage

2.4.1 Removal of protective fencing
2.4.2 Hard and soft landscaping

Root Protection Areas

3.1 The Root Protection Areas (RPA) have been determined for each retained tree and are designed to protect the absolute minimum of tree root mass in order to ensure that the trees survive the construction process.

3.2 For details of the locations of trees to be retained, Root Protection Areas and Tree Protection Fencing, reference should be made to the Tree Protection Plan (TPP).

3.3 The retained trees are on the opposite side of the proposed area for development. The existing building forms a barrier and therefore additional tree protection fencing should not be necessary.

3.4 It is the responsibility of everyone involved in the project to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

Tree Pruning

4.1 Care must be taken when planning site operations in proximity to retained trees to ensure that machinery, such as excavators, dumpers and cranes, can operate without coming into contact with retained trees as this may cause damage and jeopardise their retention.

4.2 Some pruning may be required to facilitate access but this should be kept to a minimum and must be carried out in strict accordance with the following guidelines. Under no circumstances shall construction personnel undertake any tree pruning operations.
4.3 Excluding planned tree removals, no other pruning work is currently proposed. However, if pruning is required, it will be carried out in accordance with BS3998 Recommendations for Tree Work and in line with any work already agreed with the LPA.

4.4 The statutory protection afforded by the Wildlife & Countryside Act and Countryside & Rights of Way Act will be adhered to.

4.5 The contractor shall ideally be chosen from the Arboricultural Association’s Approved Contractor list. All work shall be undertaken with the consent and approval of the site agent and arboriculturalist.

Tree Protection Barriers

5.1 Remedial tree work and any site clearance will be carried out prior to the erection of any tree protection fencing. However, it may be expedient to mark out the extents of any fencing to aid any site clearance and/or trimming of vegetation.

5.2 The Tree Protection Plan shows the alignment of Tree Protection Barriers which must be installed before any of the following take place:

5.2.1 Plant and material delivery
5.2.2 Demolition
5.2.3 Soil stripping
5.2.4 Construction work
5.2.5 Utility installation
5.2.6 Landscaping

5.3 Once erected, all Tree Protection Barriers will be regarded as sacrosanct and will not be removed or altered without prior approval by the arboriculturalist or the LPA.

5.4 The Tree Protection Barriers may require initial adjustment to facilitate removal of the current hard surface. All hard surface removal must be carried out in accordance with the relevant section of this method statement. Any alteration to the fence line must be approved by the arboriculturalist.

5.5 The Tree Protection Barriers will need to comprise of 2.4m high scaffold framework supporting exterior grade plywood with a minimum thickness of 20mm, or 2m high heras panels supported by concrete shoes and interlocked to adjacent panels by three clamps. “Protected Trees No Entry” signs will be affixed to every fourth panel. A detailed specification can be found in Appendix C.
5.6 The Tree Protection Barriers should remain in place until completion of the construction phase and removed only on the consent of the Local Planning Authority.

5.7 Should any alternative method of barrier construction be proposed, consultation with the project arboriculturalist will be obtained to clarify the efficacy of the revised design prior to seeking consent from the LPA.

5.8 Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All weather notices may be erected on the barriers as per the examples in Appendix C.

**Restrictions with Tree Protection Areas**

6.1 Inside the exclusion area of fencing, the following shall apply:

6.1.1 No mechanical excavation whatsoever
6.1.2 No excavation by any other means without arboricultural site supervision
6.1.3 No hand digging without a written method statement having first being approved by the arboriculturalist
6.1.4 No lowering of levels for any purpose (except removal of grass sward using hand tools)
6.1.5 No storage of plant or materials
6.1.6 No storage or handling of any chemical including cement washings
6.1.7 No vehicular access
6.1.8 No fire lighting

6.2 A 10m separation distance shall be observed between any tree and substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings) builders sand, concrete mixing and other chemicals.

6.3 No fire shall be lit such that flames come within 5m of tree foliage

**Soft Landscaping within Root Protection Areas (RPA)**

7.1 Ground preparation will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any RPA. Removal of existing vegetation will be carried out by hand, or with light machinery.
7.2 At no time shall a rotavator be used within any RPA to prepare the soil. Any levelling will be done by hand and with the use of hand tools.

**Hard Surface Removal within Root Protection Areas (RPA)**

8.1 Tree protection measures will remain in place until work commences and when removed all personnel working within the RPA are to be made aware of the extent and nature of the area.

8.2 The initial break up of the hard surface may be carried out by a mechanical excavator and the material then removed by hand.

8.3 Removal of the hard surface will occur in small areas working from undisturbed surface. This will enable any roots exposed to be covered with a good quality top soil to avoid desiccation and the ground to be made good as the operation progresses.

8.4 There will be no reduction in the level of the underlying soil surface. The soil may be levelled by the addition of up to 120mm of good quality top soil to BS3882:1984 using hand tools only to avoid disturbance.

8.5 Should any roots over 25mm diameter be left above the final soil level and be a hindrance to the final surface installation, their removal will only be carried out under arboricultural supervision and with the approval of the LPA.

8.6 If the area around retained trees is to be left following the removal of the existing hard surface before a new hard surface is laid, or soft landscaping implemented, the protective fencing must be correctly re-established immediately the hard surface removal has been completed.

**Installation of Underground Services**

9.1 The routing of all services has been designed to avoid retained trees and their RPA’s. However, if installation is required within an RPA, the arboriculturalist and LPA must be notified prior to removal of any Tree Protection Barriers.

9.2 Excavation with an air-spade or similar is the preferred option as it uses compressed air to remove soil from around tree roots, causing minimal damage. This operation must be undertaken by a competent operator or supervised by the arboriculturalist.
Footpath & hardstanding construction

10.1 Construction of the replacement hard surfaces will incorporate two main components, a geogrid and an aggregate sub-base.

10.2 Geogrids are a high tensile strength synthetic grid designed to support roads on soft ground. When placed on a geogrid, appropriate granular sub-base material penetrates the mesh, but is unable to pass through it, forming a positive interlock creating a reinforced platform.

10.3 The aggregate should be of low fines so that even when compacted, it is free draining and will allow oxygen to diffuse into the soil.

10.4 Construction of a surface using a geogrid and aggregate sub-base will be as follows:

10.4.1 Fill in any hollows with sharp sand by manual grading.
10.4.2 Lay the geogrid onto the soil to cover area of the driveway
10.4.3 Construct an edging if necessary with boards attached to pegs driven through the geogrid.
10.4.4 Cover the geogrid with 100mm of aggregate. This should not be tipped onto the geogrid, but placed at one end and pushed onto the geogrid so that any machinery moves on the spread sub-base, not directly onto the geogrid and not on the ground either side of it.
10.4.5 Compact the sub-base to ensure binding with the geogrid.
10.4.6 Place the final surface. It is recommended that this consists of gravel or block paviours to allow free drainage and gaseous exchange.

10.5 The recommended specialist material is a cellular confinement system call Cellweb, manufactured by Geosynthetics Ltd.

Should you have any questions or require any clarification, please do not hesitate to contact me.

Yours sincerely

Bruce Hatton

PLANT HANDLING, PLANTING & AFTER-CARE

All plant materials are to be planted in accordance with the following specifications.

Selection & Storage

- All trees and shrubs shall conform to the British Standard for Nursery Stock – BS 3936, parts 1, 2, 3, 4, & 5, as published by the BSI.
- They shall be "nursery grown," “root-balled”, or “container grown”. Roots of field-grown trees must be intact and protected from desiccation with plastic wrap. Container trees must have the container on the root ball or the root ball must be appropriately protected from desiccation.
- All plants shall have a growth habit normal for the species and variety, and shall be healthy vigorous and free of insects, disease and mechanical injury. Trees with bark included within major branch unions will not be used.
- If planting occurs during the active growing period then trees must have green, live foliage. Shocked plants (i.e. those with dead or dying leaves) will not be used.
- Trees shall be shipped to the site in enclosed vans or covered with woven shade tarpaulin.
- Root-balled trees shall be handled by the root ball in a manner that does not deform the shape of the root ball. Trees will not be lifted by the trunk.
- Trees will be irrigated upon arrival. Shrink wrapped root-balled trees and trees in plastic containers will be stored in the shade, or their root balls shaded until planted.

Planting

- Planting shall be undertaken during the dormant season, normally October 1st to March 31st. Planting may take place outside of the dormant period but only using container grown stock. No planting shall be done during abnormally hot weather or when the ground is frozen.
- Topsoil and backfill soil used in planting pits and for backfilling for trees and shrubs shall be fertile agricultural soil capable of sustaining vigorous plant growth and have a pH of 5.5 to 6.5. It shall have uniform composition, be free from large stones, wood and other foreign objects and shall not contain substances toxic to plant growth.
• Make excavations twice as wide as the root ball diameter and slightly less (50mm) than the distance between the top-most root in the root ball and the bottom of the root ball.

• Alternatively, excavate the hole slightly wider than the root ball and place the root ball in the hole so the top-most root is even with or slightly (50mm) higher than the surrounding landscape grade. Then, loosen the surrounding soil out to a diameter equal to twice the diameter of the root ball. Finally, push the loosened soil toward the root ball to fill the hole.

• If water fills the bottom of the planting hole, add soil to the bottom of the hole until the water is covered. Pack this added soil firmly. Place the root ball on this packed, solid soil, not in water. No part of the root ball shall be placed in water. If necessary, bring in soil similar to site to cover the sides of the root ball, creating a raised mound. The base of the mound (i.e. the outer diameter) created shall be at least six times the diameter of the root ball.

• Plants shall be planted at exactly the same depth as previously grown (giving consideration to 6.3). All soil in the planting pits shall be firmed to prevent air pockets and settling.

• Bare root trees and shrubs may be dipped in “Alginure” or an approved substitute root dip immediately prior to planting and in accordance with the manufacturer’s recommendations.

• After root-balled plants are set at the proper level in the holes all cord and wrapping shall be untied from the trunk base. All plants shall be backfilled with topsoil and all plants thoroughly watered at the time of planting to prevent air pockets and settling.

• All plastic material, nursery tags, string, and containers shall be removed at time of planting. The wire baskets and plastic liners of container grown trees and shrubs must be completely removed.
Irrigation & Maintenance

- Trees shall be planted with subterranean irrigation pipes such as the ‘Root Rain’ systems supplied by Greenleaf, or equivalents. All variations to be installed as per manufacturer’s instructions.

- Pipe diameter should be approximately 35mm with a securable cap attached with chain. The pipe should be installed approximately 250mm below finished level. The inlet cap should protrude between 10mm and 50mm from the finished surround level. The main bracket should not be visible.

- Trees shall be staked at planting time, the stakes having been inserted after hole excavation but prior to planting, in accordance with the diagram below.

- Maintenance shall include watering, and any other work necessary to assure satisfactory growth.
The table below should be taken as a definitive guide to the expected irrigation rates:

<table>
<thead>
<tr>
<th>Size of Nursery Stock</th>
<th>Irrigation Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 50mm girth</td>
<td>Twice weekly for 2-3 months</td>
</tr>
<tr>
<td>50 – 100mm girth</td>
<td>Twice weekly for 3-4 months</td>
</tr>
<tr>
<td>&gt; 100mm girth</td>
<td>Twice weekly for 4-5 months</td>
</tr>
</tbody>
</table>

Maintenance will include, but not be limited to, pruning, cultivating, mowing, weeding, fertilising, watering, and application of appropriate pesticides necessary to maintain plants in healthy condition, e.g. tightening and repairing guys ties or other supports, correcting defective work, maintaining mulch surface weed-free for 0.5m around the base of the tree’s stem.
ARBORICULTURALIST’S REPORT

Terms of Reference

1.1 This report was requested by Paul Meakins of Wilbytree Surgeons Ltd, Towerfield Farm, Sywell Lane, Ecton, Northampton, NN6 0QT.

1.2 The instruction to carry out an inspection of trees at Brambleside School, Kettering was received by email.

1.3 My report is to cover the species, age, dimensions, health, recommendations for any remedial work and suitability for retention in relation to any development that may take place and to include root protection areas for each tree.

Limitations

2.1 The content of this report is valid for a period of three years from the date shown above.

2.2 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

2.3 This is an arboricultural report and as such, no reliance should be placed on comments relating to buildings or soil data. I recommend that soil type is ascertained and tree related implications assessed, such as foundation type and depth, in accordance with NHBC guidelines.

2.4 This is not a full arboricultural survey. This can be supplied but will be subject to a further fee. Any safety implications identified during the inspection are of course noted within this report.

2.5 My observations and comments are based upon experience with previous cases. I have no formal engineering qualifications.

2.6 The inspection was undertaken from ground level.
The Site

3.1 The site is the grounds of Brambleside School, specifically around the school buildings and boundary fence.

3.2 There are a significant number of early mature trees present.

3.3 I carried out the survey on 19th March 2012 and collected data regarding trees and vegetation includes the species, age class, dimensions, condition and category for retention. Height data was gathered using a laser clinometer. DBH (diameter at breast height) was measured using a metric girding tape. Age and condition was estimated by examining the trees.

Discussion

4.1 The integration of trees within a development relies heavily on careful planning when locating properties and retaining trees nearby. Provided these points are considered, a harmonious relationship between people, their houses and gardens and existing trees is possible.

4.2 The forty three trees have been numbered and categorised according to Table 1 of BS5837 : 2005 Trees in relation to construction - Recommendations:

<table>
<thead>
<tr>
<th>Category</th>
<th>No of Trees</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None</td>
<td>Those of high quality and value: in such a condition as to be able to make a substantial contribution.</td>
</tr>
<tr>
<td>B</td>
<td>Four</td>
<td>Those of moderate quality and value: those in such a condition as to make a significant contribution.</td>
</tr>
<tr>
<td>C</td>
<td>Thirty Six</td>
<td>Those of low quality and value: currently in adequate condition to remain until new planting could be established, or young trees with a stem diameter below 150mm.</td>
</tr>
<tr>
<td>R</td>
<td>Three</td>
<td>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.</td>
</tr>
</tbody>
</table>
4.3 Any development proposal should consider that trees identified as retention categories A, B or C are generally those that should be retained. However, category C trees will usually not be retained where they would impose significant constraint on development.

4.4 Each tree to be retained within a development site warrants protection. The British Standard BS5837 : 2005 Guide for Trees in Relation to Construction gives clear guidance as to the Root Protection Area (RPA) using Table 2 of the document. The attached tree schedule provides the RPA radius for each tree as well as the area in m².

4.5 There are however above ground constraints that may limit development close to trees. This includes the crown spread of the tree and, in some cases, it may be necessary to increase the extent of tree protection barriers to contain and thereby protect the spread of the crown. This consideration should also allow for future growth. Additional considerations are the obstruction of sunlight or daylight to the development.

4.6 The following appendices are attached to this report:

A  Retention Categories
B  Root Protection Areas
C  How tree roots can be damaged during construction
D  How to avoid damage to trees during construction

4.7 BS5837 calls for Root Protection Areas to be shown on the plan accompanying the planning application. I have manually identified the trees on the attached plan and have included the required data in the attached tree schedule so that you can add the Root Protection Areas electronically.

4.8 For groups of trees, the data is an average for the trees within the group. However, when plotting the information onto your plan, you should be aware that Root Protection Areas will overlap considerably due to the proximity of the trees to each other within the group.

4.9 Section 5.3.1 of BS 5837 also calls for the inclusion of shading caused by retained trees where they would cause unreasonable obstruction of sunlight or daylight to a development. This is represented by a segment with a radius from the centre of the stem equal to the height of the tree, drawn from north west to east, indicating the shadow pattern throughout the main part of the day.
Conclusion

5.1 Any development proposals should seek to retain and protect the better quality trees but those that create conflict can be removed and substituted elsewhere within the site.

5.2 Retained trees should be protected with protective fencing in line with BS 5837 : 2005 Trees in relation to construction: Recommendations, at the distance specified for the Root Protection Areas in the attached schedule.

5.4 Prior to commencing any arboricultural work to the trees, it is essential to liaise with the Local Planning Authority as they may be protected by a Tree Preservation Order or within a Conservation Area.

5.5 Any arboricultural work should be carried out by a competent arborist in line with BS3998 British Standards for Tree Work. Should you require details of suitably qualified contractors, the Arboricultural Association maintains a list which is available by calling 01794 368717 or via their website (www.trees.org.uk).

Should you have any questions or require any clarification, please do not hesitate to contact me.

Yours sincerely

Bruce Hatton
<table>
<thead>
<tr>
<th>Tree No</th>
<th>Species</th>
<th>Height (m)</th>
<th>DBH (m)</th>
<th>Crown Spread N</th>
<th>Crown Spread E</th>
<th>Crown Spread S</th>
<th>Crown Spread W</th>
<th>Clear Stem Height</th>
<th>Age Class</th>
<th>Crown</th>
<th>Stem</th>
<th>Basal Area</th>
<th>Phys Condition</th>
<th>Comment</th>
<th>Retention Category</th>
<th>Life Expectancy</th>
<th>RPA radius (m)</th>
<th>RPA (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prunus 'Accolade' (Cherry)</td>
<td>7</td>
<td>0.290</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>3.5</td>
<td>38.1</td>
</tr>
<tr>
<td>2</td>
<td>Prunus cerasifera (Cherry Plum)</td>
<td>3</td>
<td>0.075</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
<td>Fair</td>
<td>Basal wound</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>0.9</td>
</tr>
<tr>
<td>3</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>0.8</td>
</tr>
<tr>
<td>4</td>
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<td>2</td>
<td>2</td>
<td>1</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>1.8</td>
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</tr>
<tr>
<td>5</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>1.3</td>
</tr>
<tr>
<td>6</td>
<td>Prunus cerasifera (Cherry Plum)</td>
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<td>3</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
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<td>3</td>
<td>3</td>
<td>2</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>2.2</td>
</tr>
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<td>2</td>
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<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
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<tr>
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<td>Sorbus sargentiana (Rowan)</td>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
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<td>C</td>
<td>10 to 20 yrs</td>
<td>0.7</td>
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<td>2</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>0.7</td>
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<td>3</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
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<tr>
<td>13</td>
<td>Prunus cerasifera (Cherry Plum)</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
<td>10 to 20 yrs</td>
<td>1.3</td>
</tr>
<tr>
<td>14</td>
<td>x Cupressocyparis leylandii (Leyland Cypress)</td>
<td>4</td>
<td>0.150</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Semi-mature</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Multi stemmed - stem diameter measured at base.</td>
<td>R</td>
<td>2</td>
<td>&lt;10 yrs</td>
<td>1.5</td>
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<tr>
<td>15</td>
<td>Quercus robur (Oak)</td>
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<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td></td>
<td>B</td>
<td>1</td>
<td>&gt;40 yrs</td>
<td>0.7</td>
</tr>
<tr>
<td>Tree No</td>
<td>Species</td>
<td>Height (m)</td>
<td>DBH (m)</td>
<td>Crown Spread N</td>
<td>Crown Spread E</td>
<td>Crown Spread S</td>
<td>Crown Spread W</td>
<td>Clear Stem Height</td>
<td>Age Class</td>
<td>Crown</td>
<td>Stem</td>
<td>Basal Area</td>
<td>Phys Condition</td>
<td>Comment</td>
<td>Retention Category</td>
<td>Life Expectancy</td>
<td>RPA radius (m)</td>
<td>RPA (m²)</td>
</tr>
<tr>
<td>---------</td>
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<td>---------</td>
</tr>
<tr>
<td>16</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>6</td>
<td>0.150</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
<td>Bark wound</td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.8</td>
</tr>
<tr>
<td>17</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.8</td>
</tr>
<tr>
<td>18</td>
<td>Acer campestre (Field Maple)</td>
<td>3</td>
<td>0.060</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Young</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
<td></td>
<td>B</td>
<td>1</td>
<td>&gt;40 yrs</td>
<td>0.7</td>
</tr>
<tr>
<td>19</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
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<td>0.160</td>
<td>4</td>
<td>3</td>
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<td>3</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.9</td>
</tr>
<tr>
<td>20</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>5</td>
<td>0.200</td>
<td>3</td>
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<td>3</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>2.4</td>
</tr>
<tr>
<td>21</td>
<td>Prunus cerasifera (Cherry Plum)</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.1</td>
</tr>
<tr>
<td>22</td>
<td>Fraxinus excelsior (Ash)</td>
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<td>0.100</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Young</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>23</td>
<td>Acer campestre (Field Maple)</td>
<td>5</td>
<td>0.210</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
<td>Minor slime flux on stem.</td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>2.5</td>
</tr>
<tr>
<td>24</td>
<td>Acer campestre (Field Maple)</td>
<td>4</td>
<td>0.150</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Semi-mature</td>
<td>Poor</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
<td></td>
<td>R</td>
<td>1</td>
<td>&lt;10 yrs</td>
<td>1.8</td>
</tr>
<tr>
<td>25</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>7</td>
<td>0.160</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.9</td>
</tr>
<tr>
<td>26</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>7</td>
<td>0.150</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.8</td>
</tr>
<tr>
<td>27</td>
<td>Fraxinus excelsior (Ash)</td>
<td>7</td>
<td>0.130</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td></td>
<td>B</td>
<td>1</td>
<td>20 to 40 yrs</td>
<td>1.6</td>
</tr>
<tr>
<td>28</td>
<td>Quercus robur (Oak)</td>
<td>4</td>
<td>0.060</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Young</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
<td></td>
<td>B</td>
<td>1</td>
<td>&gt;40 yrs</td>
<td>0.7</td>
</tr>
<tr>
<td>29</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>4</td>
<td>0.110</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>1.3</td>
</tr>
<tr>
<td>30</td>
<td>Acer campestre (Field Maple)</td>
<td>4</td>
<td>0.250</td>
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<td>Semi-mature</td>
<td>Poor</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
<td></td>
<td>R</td>
<td>1</td>
<td>&lt;10 yrs</td>
<td>3.0</td>
</tr>
<tr>
<td>31</td>
<td>Prunus 'Pink Perfection' (Cherry)</td>
<td>7</td>
<td>0.165</td>
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<td>2</td>
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<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>2.0</td>
</tr>
<tr>
<td>32</td>
<td>Fraxinus excelsior (Ash)</td>
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<td>2</td>
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<td>2</td>
<td>2</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td></td>
<td>C</td>
<td>1</td>
<td>&gt;40 yrs</td>
<td>1.9</td>
</tr>
<tr>
<td>Tree No</td>
<td>Species</td>
<td>Height (m)</td>
<td>DBH (m)</td>
<td>Crown Spread N</td>
<td>Crown Spread E</td>
<td>Crown Spread S</td>
<td>Crown Spread W</td>
<td>Clear Stem Height</td>
<td>Age Class</td>
<td>Crown</td>
<td>Stem</td>
<td>Basal Area</td>
<td>Phys Condition</td>
<td>Comment</td>
<td>Retention Category</td>
<td>Life Expectancy</td>
<td>RPA radius (m)</td>
<td>RPA (m²)</td>
</tr>
<tr>
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<td>33</td>
<td>Prunus ‘Pink Perfection’ (Cherry)</td>
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<td>0.210</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
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</tr>
<tr>
<td>34</td>
<td>Prunus ‘Pink Perfection’ (Cherry)</td>
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<td>Fair</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>35</td>
<td>Betula pendula (Birch)</td>
<td>6</td>
<td>0.090</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>36</td>
<td>Prunus padus (Bird Cherry)</td>
<td>5</td>
<td>0.330</td>
<td>2</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Multi stemmed - stem diameter measured at base.</td>
<td>C</td>
<td>1</td>
<td>10 to 20 yrs</td>
<td>3.3</td>
</tr>
<tr>
<td>37</td>
<td>Fraxinus excelsior (Ash)</td>
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<td>0.150</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>38</td>
<td>Prunus ‘Pink Perfection’ (Cherry)</td>
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<td>0.150</td>
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<td>2</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>39</td>
<td>Acer platanoides (Norway Maple)</td>
<td>6</td>
<td>0.135</td>
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<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>40</td>
<td>Prunus ‘Pink Perfection’ (Cherry)</td>
<td>4</td>
<td>0.230</td>
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<td>2</td>
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<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>41</td>
<td>Acer platanoides (Norway Maple)</td>
<td>5</td>
<td>0.160</td>
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<td>3</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Tight union but stable</td>
<td>C</td>
<td>1</td>
<td>20 to 40 yrs</td>
<td>1.9</td>
</tr>
<tr>
<td>42</td>
<td>Betula pendula (Birch)</td>
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<td>0.100</td>
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<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
</tr>
<tr>
<td>43</td>
<td>Sorbus aucuparia (Rowan)</td>
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<td>0.080</td>
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<td>3</td>
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<td>1</td>
<td>2</td>
<td>Semi-mature</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>C</td>
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