

## **DIRECTORATE OF ESTATES AND FACILITIES**

## PROCEDURE AND INFORMATION MANUAL

#### EPM ES11

## **Tree Plan and Policy**

Document originated:	February 2016	By:	Emma Gardner
Issue number:	One	No of pages:	181
Approved by:	Diana Hampson	Status:	Live
Last revised:	Original	Ву:	Emma Gardner
Next revision:	February 2018	By:	Emma Gardner

The purpose of this document is to provide guidance to deliver a phased programme of planting projects, with the potential for engaging staff, students and neighbouring residents to learn about the benefits that trees bring.



# The University of Manchester Tree Policy February 2016

This Tree Policy seeks to compensate tree loss and provide a coordinated approached to tree planting and cover across the University of Manchester, in order to realise the benefits trees provide.

From a baseline date of August 2015 The University commits to reducing the impact of tree loss and improving tree cover across the campus, and supporting tree cover in residential areas adjacent to Oxford Road Campus. This commitment extends to contributing to Manchester City of Trees.

The University will work towards delivering the following outputs:-

- Implementation of a tree plan for the Campus, which includes for new tree planting opportunities in residential areas adjacent to Oxford Road Campus;
- Two for one tree replacement, with replacement both on and off campus;
- Planting a new woodland at the University's Wythenshawe Sports Grounds;
- · Establishment of a tree trail on the University's Oxford Road and North Campus;
- Encouraging student volunteers to help plant new woodlands and carry out woodland management works alongside Red Rose Forest; and,
- Working with City of Trees and other partners to develop research projects to quantify the importance of trees for climate change adaptation and a range of other social and environmental benefits.

This policy is supported by the University of Manchester Tree Plan February 2016, produced by Red Rose Forest.

Signed:

Diana Hampson
Director of Estates and Facilities

1st February 2016

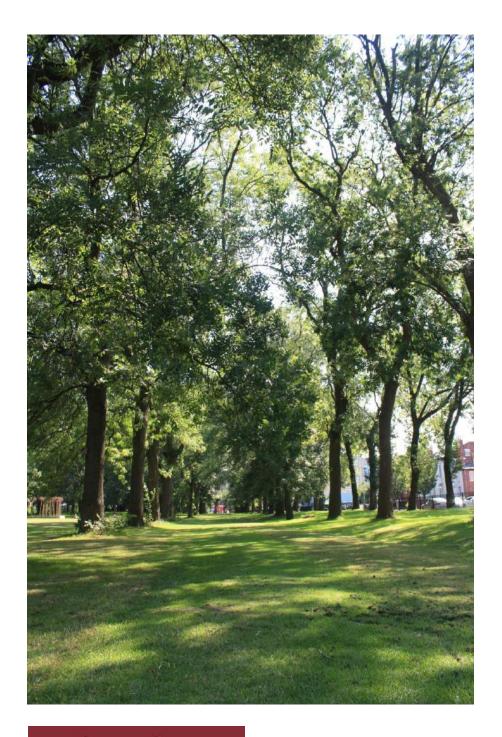
Emma Gardner
Head of Environmental Sustainability
1st February 2016

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## **University of Manchester Tree Plan**

Report produced by Red Rose Forest February 2016 (Final)



redrose**forest** 



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## **Executive Summary**

Our towns and cities play host to increasing numbers of residents, workers, visitors and students and Manchester is no exception. The University of Manchester recognises the role that trees can play in making urban environments better places for people and wildlife.

The City Centre Campus is undergoing a major redevelopment programme and the University of Manchester is focused on ensuring that as the built environment grows then so does the level of tree cover. Increasing tree cover will complement the redevelopment of the campus and help to create a world class learning environment for its students as well as providing benefit to all people travelling through the campus and in particular the adjacent communities of Rusholme, Moss Side and Brunswick.

An extensive survey taking into account a variety of constraints was carried out by Red Rose Forest in the summer of 2015 which found the potential for planting 1,162 trees, a summary of the opportunities are set out in the table below. Each of the potential planting locations has been mapped with a unique code referenced to spreadsheets which make recommendations to the species of tree that could be planted there.

## **Planting Opportunities**

Location	Potential planting locations in soft ground	Potential planting locations in hard surface	Small Trees	Medium Trees	Large Trees	Orchard	Whips	Total potential tree planting locations	Cost
Oxford Road Campus	63	129	40	133	19	0	0	192	478,500
North	19	16	11	21	3	0	0	35	69,000
Victoria Park	32	0	6	13	0	13	0	32	20,100
Wythenshawe Playing Fields	310	0	0	0	10	0	300	310	12,750
Whitworth Park	146	0	9	8	21	8	100	146	43,200
Brunswick PFI	230	37	46	140	51	30	0	267	327,500
Brunswick (non PFI)	139	41	28	130	1	21	0	180	248,700
Total planting locations	939	223	140	445	105	72	400	1162	1,199,750

Although the total cost of the potential planting opportunities is nearly £1.2million when one considers this in the context of the value of the Campus redevelopment programme this only equates to around 0.1% of the masterplan budget.

The average planting costs as set out in the table below, which are based on recent contracts let by Red Rose Forest, include the following elements;

- Excavation of tree pit
- Supply and install all materials / soil for tree pit etc.
- Supply and plant tree
- 3 years after care / establishment
- Project management costs / consultation (assuming this element is not done in house)

#### **Average Planting Costs**

Planting	Unit Cost	Unit Cost	Unit Cost	Unit Cost
Location	Orchard tree	Small Tree	Medium Tree	Large Tree
	(14-16cm)	(16-18cm)	(20/25cm)	(25cm+)
	with timber guard*			
Hard	NA	£3,000	£3,250	£3,500
Landscape				
Soft	£200	£750	£1,000	£1,250
landscape				

This 'Tree Plan' will provide the University of Manchester with the guidance needed to deliver a phased programme of planting projects with the potential for engaging staff, students and neighbouring residents to participate in the planting and aftercare and to learn about the benefits that trees bring.

The 'Tree Plan' will be a key component in the delivery of the University of Manchester's Tree Policy February 2016.

#### 1.0 Introduction

In 2015 Red Rose Forest was commissioned by the University of Manchester to explore the potential for a range of tree planting opportunities across its landholdings to help meet the University's commitment to increasing tree cover as part of the campus redevelopment programme. A draft plan was produced in September 2015, comments were invited from the University. This final plan (February 2016) reflects the comments made.

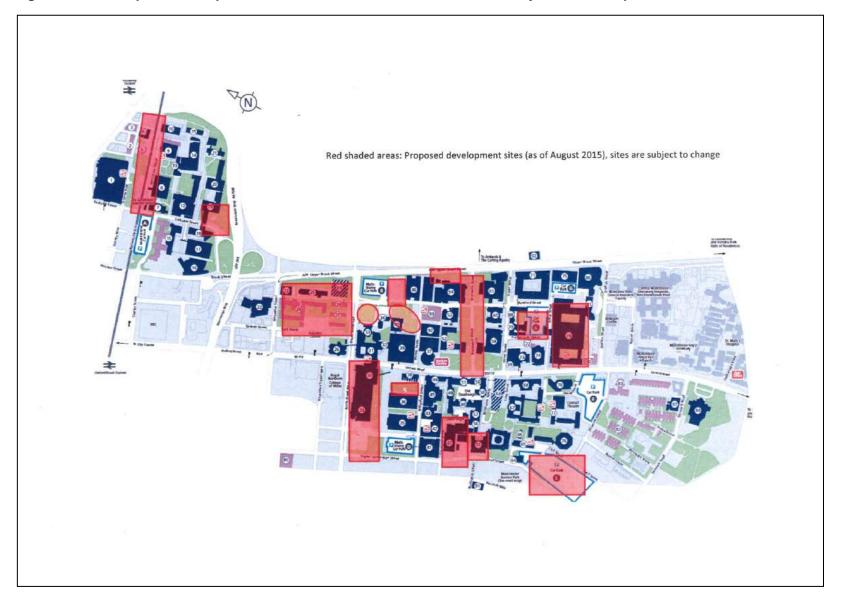
The aim of increasing tree cover within the University's land holdings is part of a wider commitment to sustainability and social responsibility. The University of Manchester Tree Plan (the Plan) supports and is supported by a number of key documents, including the University of Manchester Environmental Sustainability Framework 2016-2020, The University of Manchester Living Campus Plan 2016-2020 and the University of Manchester's Extreme Weather and Climate Change Impacts, Risks and Adaptation Responses, January 2015. The plan also supports Manchester City Council's Green & Blue Infrastructure Strategy 2016, Manchester A Certain Future and the Manchester City of Trees Movement.

The redevelopment of the main City Centre Campus will result in the loss of over 300 trees currently found on the footprints of where new build will be located and associated construction compound sites. Additional trees will be lost in the redevelopment of the Fallowfield Campus but as yet the extent of this loss has not been quantified.

Figure 1 identifies the main sites (shaded red) associated with tree removal within the City Centre Campus. Losing this volume of tree cover will have a significant impact on the feel and appearance of the campus and this will also result in a reduction in the benefits or 'ecosystem services' they provide (see table 1). The University of Manchester is focused on addressing this loss and going a step further by looking at additional scope for tree planting to increase the level of ecosystem services on Campus. In February 2016 The University of Manchester produced a Tree Policy setting out its objectives for increasing tree cover and engaging its students in the management of community woodlands.

Careful consideration has been given as to whether individual trees identified for removal could be transplanted elsewhere. This requires significant preparation time, up to a year in advance and relocating trees demands high levels of aftercare. The cost and potential risk associated with tree transplanting needs to be weighed up against the potential for replacement trees being planted elsewhere on campus. If replacement trees are semi mature in size planted to a high specification and overcompensated in number for the tree lost then this may represent a lower risk option to relocating a tree.

Figure 1 – Development Footprints Where Trees will be Lost within the City Centre Campus



Social responsibility (<a href="http://www.socialresponsibility.manchester.ac.uk/">http://www.socialresponsibility.manchester.ac.uk/</a>) is one of three core strategic goals in the University of Manchester's <a href="Manchester.2020 strategy">Manchester 2020 strategy</a>. As part of the Social Responsibility Strategy, the University of Manchester is exploring ways in which it can engage and deliver benefits to the wider community. The planting of additional trees on Campus would benefit those residents travelling into the Oxford Road Corridor from neighbouring Brunswick, Rusholme, Hume and Moss Side. In addition tree planting in the Brunswick PFI area would provide direct benefits to the resident population there. There may also be the potential for involving local schools in future planting events to further meet the University's SR agenda.

The University of Manchester has made a commitment to increasing biodiversity on campus as set out in the Living Campus Plan. Trees are recognised both as essential habitats for insects, birds and bats and as wildlife corridors between green spaces such as Whitworth Park and the Campus. Increasing tree cover would therefore be a key contributor to the aim and objectives of the University's Living Campus Plan and it is essential that long term there should be no net tree loss resultant from the Campus redevelopment.

The following Report summarises potential tree opportunities that could be implemented, subject to budgets and detailed technical appraisals.

## 1.1 The Importance of Trees

As well as making the townscape more attractive, trees also confer a number of physical benefits or 'ecosystem services' summarised below;

**Table 1 The Benefits of Trees** 

Function / Benefit	Human Benefit	Financial Implications	References
Shade / Evaporative Cooling	Screening from harmful UV rays. Reduction in heat stress	Reducing air conditioning costs	City form and natural processes- Hough (1989). The role of one large greenspace in mitigating London's nocturnal urban heat island– Doick, Peace & Hutching (2014)
Wind shelter	Reduced wind chill exposure	Reduced wind chill on buildings (windows & entrances) can reduce heating costs*	Ecosystem services in urban areas-Bolund & Hunhammar (1999)
Aesthetics	Therapeutic / calming – increasing the likelihood for walking	Contributing to possible reduction in staff sick days – reduced healthcare costs	The experience of nature- a psychological perspective- Kaplan & Kaplan (1989). View through a window may influence recovery from surgery- Ulrich (1984)
Wildlife habitat creation	Increased biodiversity – human interest and calming (site and sounds)	Red list / key BAP species such as Peregrine Falcon can attract visitors	Small urban woodlands as biodiversity conservation hot-spot: a multi-taxon approach (2008)
Rainwater interception	Shelter	Reduction in surface water flooding therefore reduced disruption to service provision and flood damage to infrastructure.	The role of woodland in flood control: a landscape perspective- Nisbet & Thomas (1996)
Noise absorption	Calming influence	Contributing to possible reduction in staff sick days – reduced healthcare costs	Ecosystem services in urban areas-Bolund & Hunhammar (1999)
Improving air quality**	Reduced exposure to pollutants	Contributing to possible reduction in asthma, heart disease and cancer - reduced healthcare costs	An integrated tool to assess the role of new planting in PM10 capture and the human health benefits: A case study in London – Tiwary et al. (2001)

<sup>\*</sup> Research is currently being undertaken on this by the University of Manchester.

\*\* Air pollution reduces average life expectancy in the UK by up to eight months, according to Government statistics.

In addition to the climate change adaptation benefits of trees, the link between peoples' health and the natural environment is well documented. Growing medical evidence shows that access to the natural environment improves health and wellbeing, prevents disease and helps people recover from illness. The beneficial psychological effects of greenery can be experienced in many settings and can be used to promote good mental health in local communities.

The World Health Organization identifies stress and low physical activity as two of the leading contributors to premature death in developed nations, and that the cumulative effect of chronic, low-grade stresses can have a greater impact on health and well-being than extreme events that occur at infrequent intervals. Exposure to nearby trees and nature can effectively reduce stress and this has been evidenced in a number of studies detailed in From Cities Good Green Health, University of Washington 2010. (http://depts.washington.edu/hhwb/Top\_Introduction.html) One such study shows that residents living in houses with near to trees and grass were more able to cope with major life issues compared to those in housing surrounded by concrete, and another revealed that individuals experience lower stress levels with greater duration and frequency of visits to green spaces. Other research shows that simply having a view of trees has been shown to increase productivity for office workers and recovery for hospital patients, View through a Window May Influence Recovery from Surgery, Roger S. Ulirch, Science New series, Volume 224, issue 4647 (Apr. 27, 1984) 420 - 421.

People are also more likely to take exercise in a green environment, and promoting physical activity in green spaces such as walking is a well-used health promotion tool - with the British Heart Foundation being at the centre of an ongoing campaign. Studies show that the character of a neighbourhood has a significant effect on residents' physical activity, and that people in communities with abundant greenspace generally enjoy better health.

Trees and woodland also can improve air quality by absorbing pollutants such as nitrogen dioxide and ozone and intercepting harmful particulates such as PM10s from car exhausts, pollen and dust which are a contributing factor to respiratory conditions such as asthma. Although some trees do produce pollen their benefits with respect to the quality of our air and respiratory health considerably outweigh this negative aspect (Hewitt 2005). Research undertaken by the British Lung Foundation estimates that one in every 8 people in the UK, almost 8 million people, is affected by lung disease.

#### 1.2 Research Collaborations with the University of Manchester

Red Rose Forest has worked closely with the University of Manchester on a number of research projects focussing on urban trees. The i-trees project which was completed in 2013 involved a range of partners including both the University of Manchester and Red Rose Forest, and had the aims of finding out how large the beneficial effects of trees are, which trees are the best, and how to plant them and care for them to maximise their benefits. The project looked at rainwater runoff with results showing that a newly planted tree – despite having a canopy of only 3m² – reduced rainwater runoff by 60%. Local cooling was also measured and results showed that even young street trees, with their small canopies, reduced temperatures by 4-5°C when the measurements took account of the surroundings as well as the air temperatures. This temperature variation is large enough to make a marked impact on a person's thermal comfort on a hot summer day. *The Effect of Trees and Grass on the Thermal and Hydrological Performance of an Urban Area, David Armson, University of Manchester, 2012.* 

The i-trees project also examined regional cooling, ie the temperature difference made to an area, by the trees within it. Different tree species were compared plus varying tree pit designs. Results showed that the most effective trees are ones which have the densest canopies. However, the effects of cultivation are far greater than the difference between species, as it is important to ensure that the tree roots are not constrained by soil compaction or lack of oxygen. Overall the i-trees study increased our understanding of the benefits of urban trees and made it clear that the trees that provide most cooling benefits are those that are the healthiest, and which are growing fastest. Effect of Pit Design and Soil Composition on Performance of Pyrus calleryana Street Trees in the Establishment Period, M.A. Rahman, P. Stringer, and A.R. Ennos, Arboriculture & Urban Forestry 2013. 39(6): 256–266.

Red Rose Forest is currently collaborating with Dr James Rothwell at The University of Manchester on an urban forestry research project which aims to demonstrate the impact that can be achieved on surface water runoff quality and quantity by diverting it in to a street tree planting trench before returning it to the engineered drainage system. Again this is a partnership project which it is hoped will provide sufficient evidence to move towards a culture shift in the design of highway infrastructure.

#### 2.0 Methodology

#### 2.1 Survey Area

Under the instruction of the client the focus of the Tree Plan was on the following discrete compartments (see figures 2 & 3);

- Oxford Road Corridor
- North Campus
- Victoria Park
- Wythenshawe Playing Fields
- Whitworth Park
- Brunswick

Although Whitworth Park does not fall under the ownership of the University of Manchester, it is leased to the University by Manchester City Council and it provides a very important resource to its students as well as the communities living in the adjacent wards of Rusholme and Moss Side. As such it was felt that the Park should be assessed to determine whether there would be further opportunity for additional tree planting to benefit the park users.

Likewise the residential areas within the Brunswick to the east of Upper Brook Street were considered to be an important area for consideration as further tree planting here would not only benefit residents who are employed on the Oxford Road and North Campus sites but would also profit the wider community. Tree planting here could help to establish east / west green linkages between the University and Brunswick demonstrating the University's commitment to investing in neighbouring residential areas and in particular the PFI area.

Wythenshawe Playing fields were included in the survey as owing to the space availability there could be the potential to create small woodland buffers which would benefit the adjacent communities and provide opportunities for engagement in planting activities.

Owens Park was not included within the survey on account that there would be a significant redevelopment of this site and at this stage it was not clear what the footprint of the development would be and how this would affect the existing tree cover on site.

Jodrell Bank was also not included in the survey area as owing to its location it was felt that further tree planting here would not provide direct benefit to stakeholders from a Manchester context in terms of mitigating tree loss.

Figure 2 – Context Plan – Oxford Road Corridor and Wythenshawe Playing Fields

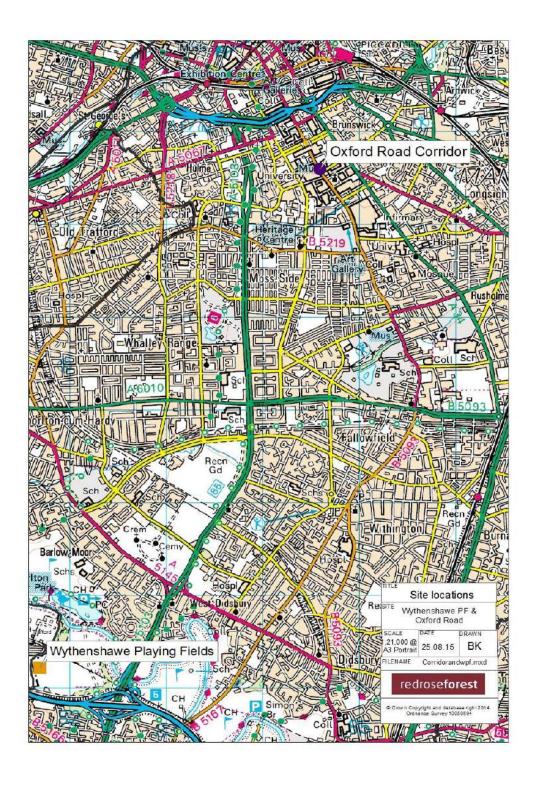
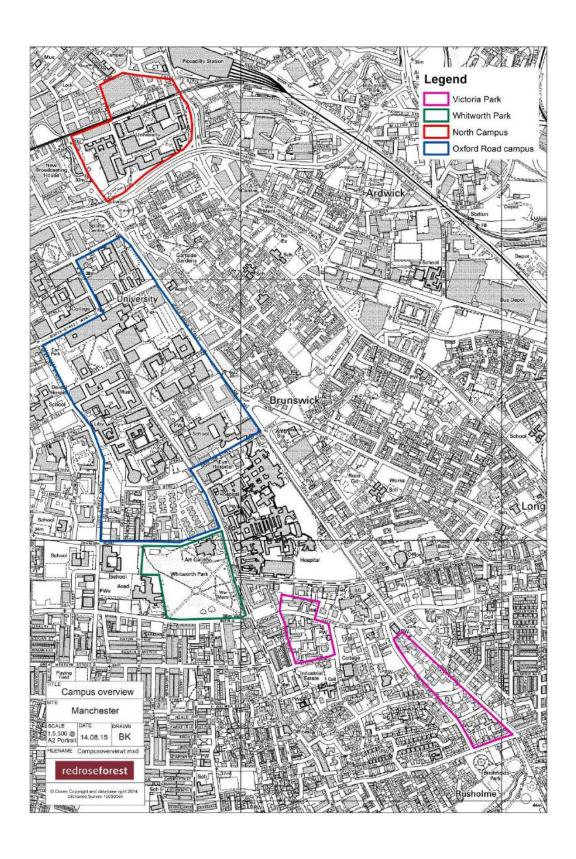


Figure 3 – Oxford Road Corridor Survey Compartments



#### 2.2 Campus Redevelopment Assessment

The University of Manchester has embarked on a £1 billion ten-year plan to create a world-class campus for students and staff. The campus Masterplan 2012–22 will see the creation of a single campus for the University and will involve the construction of new student facilities and buildings for teaching and research, as well as major improvements to the public realm.

The first phase of this visionary building programme was completed in 2015. Works include the building of the new Manchester Engineering Campus Development, the Graphene Engineering Innovation Centre, new centres for the School of Law and Manchester Business School, a major refurbishment of the University Library, and a bigger and better Students' Union.

A new linear park will be created following the closure of Brunswick Street to road vehicles between Oxford Road and Upper Brook Street. This pedestrianised space will constitute a significant amenity for students and employees of the University and it will also provide a much needed green space for the adjacent communities of Brunswick.

Several million pounds will also be invested to bring benefits to the local area and landscape, capitalising on improvements due to be made to Oxford Road as part of the Bus Priority Programme. It was agreed that any planting opportunities identified in 'The Plan' that were additional to those proposed as part of the Bus Priority Programme should be reviewed after the completion of this programme.

To ensure that any potential planting opportunities were mindful of the redevelopment proposals a campus masterplan highlighting the proposed development footprints was provided to the RRF survey team. A series of meetings were then arranged with the Project Managers and senior members of the Directorate of Estates and Facilities to facilitate discussions about tree planting opportunities adjacent to the development sites and the potential for incorporating tree planting into the development proposals.

Discussions were held with the Deputy Environmental Services Manager with regards to potential tree species, planting specifications and maintenance implications. In addition the potential planting locations were discussed the Crime Reduction Advisor and the CCTV officer to ensure that these were mindful of site security.

#### 2.3 Site Surveying

Each of the six compartments was surveyed in the field by officers from Red Rose Forest with potential planting locations being marked on plans that were later digitised. Site meetings with the staff members listed below took place to look at specific sites so that constraints and opportunities could be identified.

Patrick Osborn - Landscape and Sustainability Technician, Whitworth Park

Edward Braney - Facilities Manager, Wythenshawe Playing Fields and other sports facilities

Paul Shaw - Deputy Environmental Services Manager

Alexander Clark - Environmental Co-ordinator

Kevin Hughes - Head of Porter Services

Duncan Brennan – Portering Services Manager at Victoria Park

Under the instruction of the client both green spaces and areas of hard standing including pavements were examined to determine whether they would be suitable locations for planting trees. Any potential planting opportunities were then marked on hard copy maps of the area. For each potential planting location note was taken of the following;

- The location street / road name and or proximity to a particular building
- Whether the location was a hard or soft landscaped area
- Site ownership, University of Manchester (UoM), Manchester City Council (MCC) or other
- The amount of space available that would determine the scale of species that could be planted i.e. small (ornamental), medium or large
- Any other pertinent issues relating to the locality

The planting locations were then plotted on to an ARC GIS Map (see figure 4 below as an example) layer and each plot was given a unique code referenced to a survey spreadsheet. The survey spreadsheet (see Table 2 below) has been designed to provide a brief overview of the location, the scale of tree that would be appropriate for that location, the approximate cost of supplying and planting the tree and any issues recommendations associated with the location.

The completed survey sheets are located in the Appendices.

Figure 4 - Example of Plotted Potential Tree Plots - North Campus

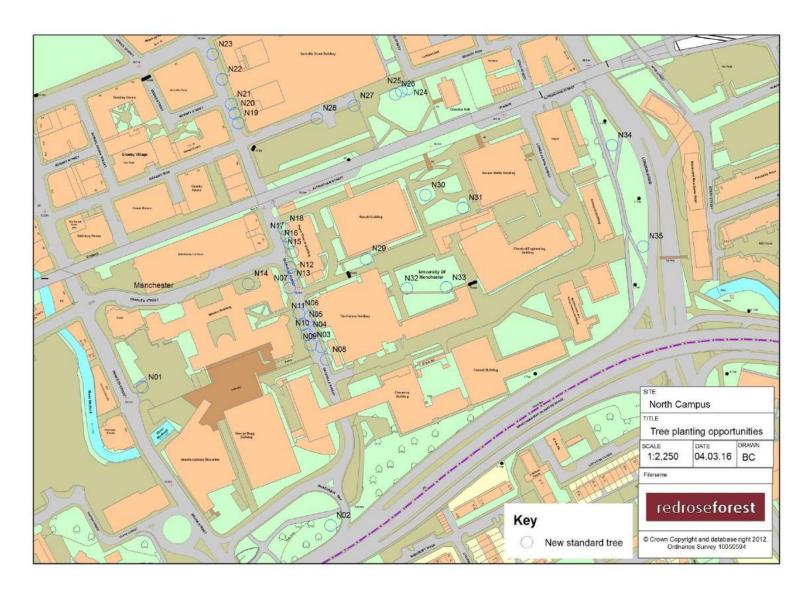


Table 2 - Extract from Completed Survey Sheet - North Campus

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip	Tree guard required Yes/No	Approx. cost £	Comments
N1	Princess Street, opposite Montana House	Soft	University	Large	Yes	1250	Open space will allow for large tree at the entrance to a bleak looking car park
N2	Verge adjacent to the Mancunian Way slip road, leading to Sackville Street	Soft	Manchester City Council	Large	Yes	1250	
N3	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N4	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N5	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N6	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N7	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N8	Sackville Street, outside of Pariser Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road

#### 2.4 Constraints

The suitability of each location was considered taking into account a number of constraining factors, namely their proximity to;

- adjacent buildings
- CCTV cameras
- Street furniture
- road junctions / traffic lights
- bus pull-ins
- site ownership

For pavement locations under the advice of the Disabled Access Officer for Manchester a minimum pavement width of 2400mm would be required to accommodate both a tree and a sufficient clearance for a wheelchair user.

Service plans were also accessed to provide an indication of whether services would be an issue in proposed planting locations. However, it is stressed based on over 15 years' experience of planting trees in an urban environment that service plans are only indicative of the actual location of underground pipes and cables and that the best way to determine their precise location is through the digging of trial hole transects. This will be covered more in the recommendations section.

An assumption was made that potential planting locations which did not fall under the jurisdiction of the University of Manchester were owned by Manchester City Council. However, if any of these were to be considered for tree planting further investigation would be required via the City Council's Land and Property section to ascertain if the City Council were the landowner. If this were to be the case then the next step would be to contact the City Centre Regeneration Team to discuss whether tree planting would be acceptable.

Likewise for tree planting opportunities on pavements belonging to the City Council consent would be required from the Highways Officer and then an agreement from the City Council Tree Officer to accept long term maintenance responsibility, unless the University of Manchester were prepared to take on this requirement themselves.

#### 2.5 Overcoming Constraints

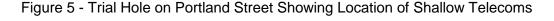
**CCTV** – A meeting was held with the CCTV Officer to discuss the impact of proposed tree planting locations and species selection on CCTV cameras. This resulted in a number of possible planting locations being removed because of their potential for obscuring CCTV

cameras' 'field of vision'. Further more detailed meetings and site visits will be required with the CCTV Officer before the actual planting of trees on campus. All trees planted on campus should have a clear stem allowing a clearance of 2.2m above ground level (Highway Authority Standard). This clearance will reduce the likelihood of pedestrians catching themselves on branches and casual vandalism and will help to maintain a field of view for CCTV cameras.

**Underground services** – As previously referenced service plans are frequently inaccurate as contractors often do not install services at the regulation depths or positions. On account of the majority of tree rootgrowth being lateral rather than descending electricity, gas, water and sewerage are generally deep enough down not to be a constraint. However, the same cannot be said for telecoms. Telecoms are invariably at a depth of between 250mm and 600mm which is particularly problematic for street tree planting.

It is therefore strongly recommended for potential street tree planting locations that a sample number of trial holes are dug so that an accurate picture can be produced of the depth and location of the services. This is a far cheaper option that having to abandon a tree pit halfway through digging and it frequently demonstrates that locations are viable planting options despite what the service plans are indicating.

1 meter long x 1 meter deep trial hole transects cost between £250 and £300 plus VAT.





There is nothing that can be done to accommodate trees in the existing highway where services are an issue (owing to cost) unless major highway works would present the opportunity for relocating shallow telecoms. However, like many problems the solution to this problem can be achieved by moving the goal posts.

An alternative would be to plant trees in large free standing planters which is a frequently adopted approach but the success of doing this depends on regular watering during the growing season which can prove costly. Planters and raised beds are more likely to become hotter than in-ground planting and so water is more likely to evaporate. Where soil is above ground level and uninsulated by surrounding soil, it will be subject to greater extremes of heat and cold. However, there may be scope for using large planters with inbuilt reservoirs which would reduce the amount of watering visits required.

As a variation on this technique large opened bottomed planter could be constructed on the highway to a depth that would provide space for the tree rootball and room for the roots to grow above the telecoms in the soil void below the planter. Cover such as root barriers would need to be wrapped around the telecoms to discourage root heave.

This option would provide the trees with the opportunity to access water in the soil structure below and so would reduce the frequency of watering needed to sustain them. The potential for irrigating the planter by directing water from adjacent building down pipes and into the planter via a shallow trench drain could also be considered.

**Urban Heat Islands and heat scorching** – In urban locations the large volumes of dark surfaces act like giant storage heaters and buildings with large surface areas of glazing reflecting radiant heat and ultraviolet light rays (on reflective glass) at the street level which can cause scorching on the leaves of adjacent leaves. High summer temperatures in urban areas can have a detrimental effect on tree leaves and roots. Increased leaf temperatures encourage trees to cool themselves through the process of transpiration. As temperatures rise, water vapour is released through small pores (stomata) in the leaf surface, thereby cooling the tree. On a hot day, a large deciduous tree can transpire as much as 100 gallons of water into the surrounding air. *Journal of Arboriculture July 1976, Vol. 2, No. 7, Trees Modify the Urban Microclimate, C.A. Federer* 

This volume of water is not always easily replaced because of inadequate moisture in the soil and in such instances additional irrigation would be required to compensate for the loss. A lack of available water to trees in hot sites can lead to scorching of (dried) leaf margins or dead leaves.

In addition to increasing the duration and frequency of irrigation the issue of heat can be addressed by placing trees between the path of the sun and windows or selecting a species of tree than can tolerate heat.

There are a number of species that are better equipped to cope with 'hot sites' and species commonly available in the UK include Acers, Hawthorns, the English Oak, London Plane, Liquidambar and the Ginkgo, see Appendices for information about these species.

#### 3.0 - Planting Specifications, Planting and Aftercare

To increase the longevity of the trees planted, minimise the risk of damage to pavements and other hard landscaped areas and reduce the associated maintenance costs it is recommended that high quality planting specifications are employed.

#### 3.1 Planting specification in soft landscaped areas

A soil condition survey is recommended to get a better understanding of what kind of soil substrate the tree roots will be growing into and to determine whether there are issues with contamination or poor drainage and what the organic content of the soil is. A current green space may not have always been 'green' and could previously have hosted a building which may mean that there are significant levels of inert material and even substantial voids where cellars may once have been.

Assuming that there are no major issues with contamination, drainage or high levels of inert material a tree pit dug 1.5 to 2msg x 800m to 100mm deep is recommended.

The tree pit should contain the following components;

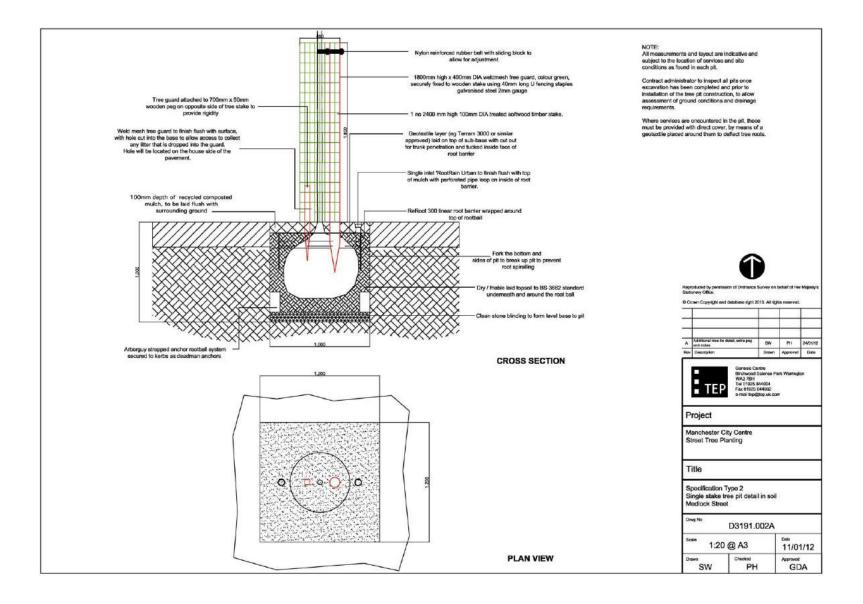
- Soil conforming to BS3882
- Drainage base of non-calcareous aggregate
- Underground guying to help stabilise the tree from high winds and vandalism
- Perforated irrigation pipe wrapped round the tree rootball
- Mulch mat and or mulch layer for retaining water and preventing weed growth
- Tree stake and guard to reduce vulnerability to vandalism

Figure 6 provides a typical representation of the elements required for planting an extra heavy standard / semi mature tree in a soft landscaped area.

Compared to hard landscaped area trees planted in soft landscaped areas have the benefit of being able to access water more easily on account of the amount of rainwater that is able to drain through the permeable surface and in to soil horizons below. Bare root trees and rootballed trees should ideally be planted between November and early March, containerised trees can be planted at any time of year but the risk of failure and the amount of watering required naturally increases between April and September.

For whips (small 2-3 year old trees up to approximately one metre in height) these can be either planted in small pits that need to be deep and wide enough to accommodate the depth and width of the roots or a notch incision if the roots are not extensive.

Figure 6 – Tree Planting Design for Soft Landscaped Area



#### 3.2 Planting in hard landscaped areas

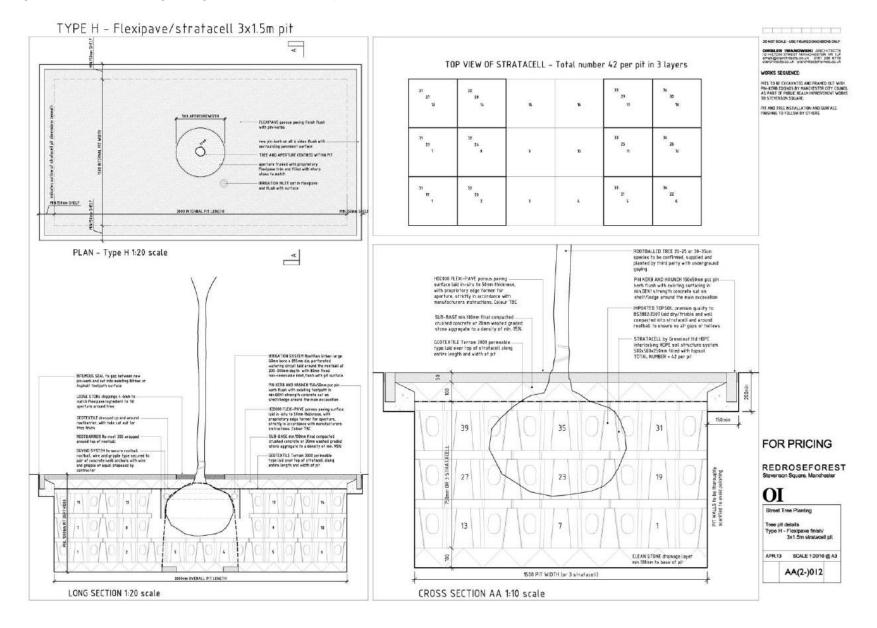
Hard landscaped areas are much difficult to plant trees in owing to the issues of services, permeability, poor soil quality, drainage and compaction, the latter being necessary to provide the load bearing structure to support overlying paving materials.

So the objective is to try as best as possible to replicate the natural environment that a tree would grow in. Ideally it is recommended that a large tree pit is constructed to provide ample room to accommodate root growth but owing to lack of space or the presence of services this is often very difficult. So instances where space is restricted it is not advisable to plant large species trees as there will be insufficient space to accommodate future root growth. This will likely result in damage caused to hard landscaped areas as the roots break out to find new growing space, stunted trees and premature failure. Therefore it is recommended that the species selected conforms to the old adage of the right tree in the right place. On pavements that are narrow but conform to the minimum required width of 2400mm ornamental species are recommended with a tree pit size of at least 2m x 1m x800mm. On pavements or hard landscaped areas that are 3m + in width medium sized species are recommended with a tree pit that achieves the minimum dimensions of 3m x 1m x 1m, bigger of course is always better and will give the tree a much better chance of developing sustainably and achieving its growth potential.

As set out in Figure 7 it is recommended that the tree pit should contain the following components;

- Soil conforming to BS3882
- Drainage base of non-calcareous aggregate
- Underground guying to stabilise the tree from high winds and vandalism
- Perforated irrigation pipe wrapped round the tree rootball
- Geotextile and mulch layer for retaining water and preventing weed growth
- Tree stake and guard to reduce vulnerability to vandalism
- Modular cell system to provide load bearing structure for supporting overlying paving and to prevent compaction in the soil to help facilitate the movement of water and oxygen to the roots and to guide the roots in a sustainable direction
- Root director / root barrier to discourage tree roots from coming to the surface or causing root heave on services
- A permeable surface is recommended to maximise the amount of water and oxygen that can permeate down to the roots below. This will lower the risk of failure and reduce the dependency on contract watering.

Figure 7 – Tree Planting Design for Hard Landscaped Area



#### 3.3 When to Plant and Aftercare

Tree planting ideally takes place in the winter season when the trees are dormant giving their roots the opportunity to establish themselves before leaf growth begins. The crucial establishment period is the first two years following planting when street trees will require watering unless the weather is particularly wet. Trees planted in hard standing will be under more stress than those planted in soft landscaping as they have only limited access to water, air and soil, they do require frequent watering in dry periods especially if it is hot and dry in the months after planting between April and September, the growing season.

It is recommended that after planting the tree should benefit as a minimum from at least two years of establishment watering during the first two growing seasons and preferably 3 years for trees planted in hard landscaped areas.

Where trees are planted in hardstanding or soft landscaping and staked, as they grow they will require the tree ties to be loosened so that they are not constrained by the ties. Once the trees are well established and if there is no danger of damage, the tree ties, stakes and guards can be totally removed. This is usually after five years after planting.

Whips will not generally require watering if they have been planted at the appropriate time of year A mulch mat and or woodchip should be installed around the base of the tree, but not above the nursery line of the tree, preferably to a meter circumference from the trunk of the tree. Mulch will need to be topped up as it begins to decompose. If the grass and weeds grow vigorously they will prevent the trees from getting enough water nutrients and light which will stunt their growth and potentially kill them.

#### 3.4 BS 8545 Standard

All too frequently trees are handled poorly, planted inappropriately and installed in tree pits that are inadequate in terms of size and growing media. There are many examples of 'trees that have failed in Manchester on account of poor planting standards, a lack of care or understanding by contractors and insufficient watering during the establishment period. A dead or struggling tree creates a very negative perception and is worse than no tree at all!

It is recommended therefore that the BS 8545 standard: From nursery to independence in the landscape is followed for all future tree planting on the University of Manchester campus.

BS 8545 Trees: from nursery to independence in the landscape – These recommendations, have been launched by the British Standards Institutes Group, to help safeguard infant trees and to increase their longevity;

"Currently a large number of trees in the urban environment are dying too soon after planting, and, according to the Department of Communities and Local Government's Trees in Towns II Report, the loss rate stands at 25%."

"To combat this problem and also to address the fact that, to date, there has been a lack of cohesive standards covering tree specification and transplanting, the new standard was developed. BS 8545 offers a sound understanding of good practice and is a comprehensive and up-to-date information resource. It enables the user to carry out quality decision-making in a range of different situations."

#### Such situations include:

- Design and strategic intentions
- Individual site constraints and requirements
- Nursery availability and quality of tree stock
- Budget size and maintenance schedules

#### 4.0 - Tree Species

There are a number of important criteria which need to be considered when selecting a tree species for a specific planting location. This section will focus on the different characteristics that trees can offer which can be used to guide species selection for future planting opportunities to meet specific requirements such as space, visual amenity and biodiversity benefit.

#### 4.1- Space

Principally the most important issue is how much space is available. In the constraints section reference was made to consideration being given to factors such as pavement width, CCTV, street signage, site lines at road junctions, bus pull-ins, traffic lights, street furniture and adjacent buildings.

Bearing these constraints in mind consideration should be given as to the maximum height and width of a tree that can be accommodated without impeding upon these constraints.

In general urban tree planting terms tree selection can be categorised as;

- Small / ornamental species
- · Medium sized species
- Large species

This classification has been used as the basis for the planting recommendations in the survey sheets. A guide to a short list of species and their varieties that fall within these 3 categories is provided in the Appendix.

It should be noted though that the classification of small, medium and large tends to refer to the combined overall spread and height and not specifically the shape. There are in each of the size classifications trees that can maintain a relatively narrow form irrespective of their height potential. Such trees are referred to as being fastigiate and these specimens provide the opportunities for achieving a visual impact where lateral space is restricted.

#### 4.2 – Spring colour

The spring blossom displays of trees provides a tangible and welcome sign that winter is receding and spring is on its way which can provide a much needed psychological boost and provide early foraging for pollinators such as bees. As with autumn colours there are many Cherry varieties that provide beautiful spring blossoms and perhaps the best of these is the Prunus accolade which produces prolific semi-double pink blossoms.

Other trees that are worthy of consideration for their spring blossom include;

- Crataegus laevigata Paul's scarlet (Hawthorn)
- Davidia involucrate (Handkerchief tree)
- Magnolia X loebneri Merrill
- Paulownia tomentosa (Foxglove tree)

#### 4.3 - Autumn colour

Most deciduous trees will provide an autumn display where the leaves change to a colour different from their spring / summer showing. There are however a number of species and varieties that can provide a display that adds real vibrance and interest to where they are planted. Many of the Cherry varieties provide vivid displays of orange and yellow but trees that are frequently selected because of their autumn showing include;

- Acer X freemanii (Autumn Blaze)
- Amelanchier lamarchii
- Liquidambar styraciflua
- Parrotia persica

#### 4.5 – Leaf shape / colour including variegated

In addition to the autumn colours there are a number of trees whose leaves can provide interest in their own right by virtue of unusual shape or colour.

The following specimens are noted for the interesting leaf shape;

- Liriodendron tulipifera (Tulip tree)
- Liquidambar styraciflua Stella (Sweetgum tree)
- Nothofagus antartica (Antartic beech)
- Ginkgo biloba
- Quercus frainetto (Hungarian Oak)

For interesting leaf colour consideration could be given to;

- Castanea sativa Variegata (variegated Sweetchestnut)
- Liquidambar styraciflua Manon Variegata (variegated Sweetgum)
- Fagus sylvatica purpurea Copper Beech
- Alnus incana Aurea (Grey Alder clone)
- Cedrus atlantica Glauca (Blue Cedar)

#### 4.6 - Evergreen trees

In locations that are dominated by buildings and hard landscaped areas it may be worth considering evergreen trees to provide all year round colour and a much needed uplift of colour during the winter months. There are both deciduous and conifer trees that will continue to produce leaves all year round, good examples include;

- Quercus ilex (Holm Oak)
- Magnolia grandiflora
- Ligustrum lucidium Variegata (Chinese Privet)
- Picea pungens Hoopsii (Colorado Blue Spruce)
- Pinus sylvestris (Scots Pine)

#### 4.7 - Bark

In winter time when deciduous trees have lost their leaves the visual benefit provided by a tree is significantly reduced however, there are a number of species that have colourful bark which can help to provide interest and a source of brightness on dark days. Birch trees in particular are very good at providing this lighting up lift. The following trees are associated with attractive bark colour:

- Betula albosinensis Fascination (Chinese Birch)
- Betula utilis Jacquemontii /Doorenboss (Himalayan Birch)
- Eucalyptus niphophilia
- Prunus serrula Tibetica Tibetan Cherry
- Platanus X hispanica (acerfiloia) (London Plane)

#### 4.8 - Biodiversity

There is a growing momentum for encouraging more wildlife into Manchester City Centre with more biodiverse planting schemes in locations such as St John's Gardens and the grass verges on Princess Road and the Mancunian Flyover underpass. Trees play an important role in providing homes and a source of food for birds, insects and mammals. Native trees are generally considered to be best suited to our native wildlife but species or varieties that are not native to the British Isles can still provide an important habitat and source of food for wildlife. The English Oak, Quercus robur, is frequently cited as one of the best trees for both fauna and flora, it can support up to 284 species of insect, up to 324 different lichens, many birds, bats and small mammals.

In Manchester city centre there are Apiaries located on the University of Manchester's Oxford Road campus, the Printworks, Manchester Cathedral and there are plans for more. Bees need large areas for foraging if they are to sustain their colonies so it is important that a good source of pollen, nectar and propolis resin (for hive repairs) is available locally especially when the bees are emerging in spring. Trees that provide a good source of food through their catkins or flowers in spring include;

- Alnus glutinosa (Common Alder)
- Corylus avellana (Hazel)

- Amelanchier arborea (Serviceberry)
- All Malus (Apple trees)
- All Prunus (Cherries, pears, almonds, plums)

Planting orchards is obviously good for bees and other pollinators but fruit trees are also attractive to Bull Finches which is as an Amber List species under the Birds of Conservation Concern review.

#### 4.9 - Canopy shape

There are a number of trees that can add interest by virtue of their canopy shape. As previously mentioned where space is limited fastigiated trees provide a good solution and they can be a landmark in their own right.

In the Mediterranean the Italian Cypress is frequently used to provide boundary definition between roads and estates and is a very narrow but nevertheless impressive architectural tree. Other fastigiate trees that could be planted where space is short and visual impact is needed include

- Pinus sylvestris Fastigiata (Scots Pine)
- Betula pendula Fastigiata (Birch)
- Populus tremula Erecta (Aspen)
- Carpinus betulus fastigiata Frans Fontaine (Hornbeam)
- Liquidambar styraciflua (Liquidambar)
- Ginkgo biloba Lakeview

At the opposite end of the scale trees can also provide a weeping habit which apart from looking very distinctive also provides good shelter from the sun and rain. Examples of weeping trees include;

- Betula Pendula Youngii (Birch good for small paces)
- Prunus Shirotae (Mount Fuji cherry)
- Salix alba Tristis (Weeping willow good for wet spaces but don't plant near water mains)
- Ulmus glabra Camperdownii (Camperdown Elm good for areas of restricted space)
- Fagus sylvatica 'Pendula', (Weeping Beech)

In **Appendices 1, 2 and 3** further information about potential planting species within the small, medium and broad categories has kindly been provided by Barcham Trees PLC www.Barcham.co.uk

This is by no means an exhaustive list but it is considered to be a good starting point for trees that would be appropriate for different space scenarios.

#### 4.10 Tree Trail

At the request of the client RRF was asked to consider the opportunity to establish a campus wide arboretum or tree trail consisting of trees that have a specific relevance to an academic subject or field of research associated with the University. Likewise the client suggested that individual trees could be planted to commemorate famous academics at the University, this could be associated through particular uses / features of the trees that have a link with a specific field of research or character traits of the celebrated individual. For example a Monkey Puzzle tree could be likened to Alan Turing's work to crack the German Enigma Code.

The Tree Trail could also include trees from different parts of the world to celebrate the diversity of the students studying at the University. Red Rose Forest delivered something similar in Longsight at the launch of the Commonwealth games with a tree planted to represent every continent where the competitors hailed from.

There would be an excellent opportunity to make the Tree Trail and outdoor learning opportunity associated with the Manchester Museum. A leaflet could be produced listing every tree and explaining their significance and to make the trail more fun for school children the trail could form a tree treasure hunt with the children having to tick of the trees on the leaflet as they find them. Alternatively or in addition the Tree Trail could be brought to life via a podcast. This would be an excellent opportunity to bring the public and in particular school children into the campus helping to establish better links with the surrounding communities. Guided public tree walks / tours could also be delivered by the Manchester Museum as an additional vehicle for engaging with adjacent communities. The University also runs guided lunchtime walks which could incorporate the Tree Trail.

The tables 3, 4 and 5 set out some initial suggestions for trees that could be part of the Tree Trail and their particular field of relevance to an academic subject or famous academic.

Table 3 – Trees Relating to Academics / Buildings

Academic	Tree Suggestion	Reason
Alan Turing	Monkey Puzzle tree	Solved the enigma code
Paper science building	fir, spruce	common pulpwood species used to make paper
Melvin Calvin	clove, ceylon cinnnamon, bay leaf, arizona pine	trees with high carbon fixation, calvin cycle
Robert Robinson	cinchona tree, strychnine tree, various acacia species	Contain alkaloids, which robinson studied
Walter Haworth	spruce, pine	high levels of vitamin c

Table 4 – Tree Relating to Specific Buildings on Campus

Building	Tree Suggestion	Reason
		Peter talks to Jesus about the
St Peters House	fig tree	fig tree, non-canonical
	spruce, cedar, maple,	used often in musical
Martin Harris Centre	rosewood	instruments
	Senegalia catechu,	
	Garcinia, kamala tree,	
	eastern black oak, dyers	used in dyes, Schunck worked
Edward Schunck	mulberry,	with dyes

Table 5 – Trees relating to Specific Schools within the University

Tree	Use	Relevant School
Silver Birch	Anti-cancer drugs	School of Medicine
Black Poplar	Aspirin	School of Medicine
Wild cherry	Production of paints, varnishes, coatings	School of Arts / School of Chemistry
Oak	Construction, furniture and tanning	School of Materials / School of Chemistry
Beech	Eye drops, antibiotics, textiles & textile finishing	School of Medicine / School of Materials
White willow	Paper and pain relief drugs	School of Materials / School of Art / School of Medicine

#### 4.11 Planting Sizes and Protection

Red Rose Forest has been planting trees for over 20 years in difficult urban environments both in hard and soft landscaped areas. This experience has demonstrated that planting in publicly accessible locations needs careful consideration in terms of achieving the desired visual impact and protecting against vandalism.

For proposed planting opportunities within the City Centre campus it is recommended that all trees in their establishment period are protected with tree guards and underground guyed that latter making it more difficult for newly planted trees to be pushed over. Both Red Rose Forest and Manchester City Council use weldmesh tree guards for the tree planting as these are malleable which means that if someone tries to pull or push the tree over the guard bends with the tree unlike cast iron tree guards which can act as fulcrums making it easier to snap the tree. If damaged the weldmesh tree guards can be bended back into shape.

To further increase resilience to vandalism and to help create an immediate visual impact it is recommended that large specimens are planted.

The British Standard BS 3936-1, nursery stock specification for trees and shrubs is as follows;

Table 6 - Guide to BS 3936-1 Tree Sizes

Specification	Tree Girth	Tree Height
Standard (S)	8-10cm	2.5-3m
Select Standard (SS)	10-12cm	3-3.5m
Heavy Standard (HS)	12-14cm	3.5m min
Extra Heavy Standard (EHS)	14-16cm	3.5m min
Extra Heavy Standard	16-18cm	4-4.5m
EHS/ Semi mature	18-20cm	4.5-5m
Semi mature	20-25cm	4.5-5.m
Semi mature	25-30cm	5-6m

Semi-mature trees start at 20cm girth and progress in increments of 5cm, e.g. 20-25cm, 25-30cm.

Based on the sizing guide above it is recommended that Extra Heavy Standards of 16-18cm be applied as the minimum planting size and for key visually accessible locations in the public realm such as the pavements of Oxford Road semi mature specimens of 20-25cm and above should be planted.

#### 4.12 Average Planting Costs

The average planting costs that are set out in Table 7 are based on the specifications outlined in 3.1 and 3.2. Where the opportunity arises especially in key public realm locations where space permits larger tree pits and larger tree specimens should be considered which will naturally mean a higher cost than the large tree cost indicated in Table 7.

The average planting costs in Table 7 include the following elements;

- Excavation of tree pit
- Supply and install all materials / soil for tree pit etc.
- Supply and plant tree
- 3 years after care / establishment
- Project management costs / consultation (assuming this element is not done in house)

Table 7 – Average Planting Costs

Planting Location	Unit Cost Orchard tree (14-16cm)	Unit Cost Small Tree (16-18cm)	Unit Cost Medium Tree (20/25cm)	Unit Cost Large Tree (25cm+)
	with timber guard*			
Hard	NA	£3,000	£3,250	£3,500
Landscape				
Soft	£200	£750	£1,000	£1,250
landscape				

See figure 8 for example of orchard tree with timber guard.

A cost has not been supplied for whip planting (small trees up to 60cm high). Whip trees generally cost around 30 pence each and these can easily be planted by volunteers with appropriate supervision.

Figure 8- Orchard Tree with Timber Guard



#### 5.0 - Survey Findings

Table 8 below provides a summary of the potential tree planting opportunities that were mapped during the site surveying exercise. In Appendices 4 to 10 the complete tabulated results of the surveys and planting location plans can be found.

This section will provide a summary of the key opportunities for each of the 6 compartments that were mapped along with some visualisations to demonstrate the impact that tree planting can have on some of these locations.

Table 8 – Summary of Potential Planting Opportunities

Location	Potential planting locations in soft ground	Potential planting locations in hard surface	Small Trees	Medium Trees	Large Trees	Orchard	Whips	Total potential tree planting locations	Cost
Oxford Road campus	63	129	40	133	19	0	0	192	478,500
North	19	16	11	21	3	0	0	35	69,000
Victoria Park	32	0	6	13	0	13	0	32	20,100
Wythenshawe Playing Fields	310	0	0	0	10	0	300	310	12,750
Whitworth Park	146	0	9	8	21	8	100	146	43,200
Brunswick PFI	230	37	46	140	51	30	0	267	327,500
Brunswick (non PFI)	139	41	28	130	1	21	0	180	248,700
TOTAL PLANTING LOCATIONS	939	223	140	445	105	72	400	1162	1,199,750

#### 5.1 Oxford Road Corridor - Key Opportunities

Planting street trees as part of the Bus Corridor Scheme would add significant value to the experience of public transport users and pedestrians as well as creating a high impact gateway to the University campus.

Oxford Road west elevation - there is the potential to plant up to 14 trees on the pavement between the Manchester Business School and the Alan Gilbert building. While on the east elevation there is scope for up to 13 street trees between the Kilburn Building and in front of Oxford Place. Collectively this would help to achieve an impressive tree lined boulevard adding to the line of Chinese Dawn Redwoods that have been planted on the green space in front of the Williamson Building.

Upper Brook Street west elevation - in front of the Core Technology Facility and the AV Hill Building near the junction of Plymouth Grove there is the scope to plant 12 trees in a linear stretch of hard (pavement) and soft landscaped areas. This would add significant benefit to a stretch of road where there is very little Green Infrastructure. Trees should be planted at front of pavement as opposed to back of pavement where they could be used to aid climbing over the boundary fences.

Booth Street West – on the pavements on both sides of the street there is the potential for 14 street trees (total). This has been flagged up as an area where services might be a problem but as yet no trial holes have been dug to ascertain their exact location. Planting trees on Booth Street West would help to create an east – west green link between Hulme and the University campus.

Upper Brook Street in front of the proposed MECD – this site will be redeveloped as part of the MECD development. It is recommended that tree planting here would provide a good buffer between the new building and the busy Upper Brook Street dual carriage way. There is scope for 17 trees which could be planted on the grass verge close to the existing pavement to leave sufficient space for the building footprint behind. Large but fastigiate species are suggested as this would help to maintain vistas through to the MECD.

Denmark Road north elevation – 17 possible locations have been identified for street trees on the north elevation. The south elevation is already well catered for by Whitworth Park. Planting street trees here would add benefit to the student halls and would help to create and east – west green link to neighbouring Moss Side.

## Oxford Road Corridor - Visualisation of Tree Planting Adjacent to Whitworth Building

## Before



## After



#### 5.2 North Campus – Key Opportunities

Sackville Street near junction of Whitworth Street, east elevation – the pavements on the east elevation of Sackville Street are over 4m wide and would provide a good opportunity for planting up to 5 medium sized trees which would help to create a good linkage to Whitworth Street where a future street tree planting project is proposed.

Sackville Street, from junction of Charles Street to the Faraday Tower – there is the potential to plant up to 15 street trees here on both sides of the street (total) which would help to create an avenue feel and create a green linkage with the trees outside the Sackville Building and then onto the proposed tree planting route on Whitworth Street.

Granby Row in front of the Sackville Building – there is space for an additional 5 trees (medium size) in soft landscaped areas to help create more of an avenue feel.

#### 5.3 Victoria Park – Key Opportunities

The existing levels of tree cover in Victoria Park is good both within the grounds of the University Halls and on the grass verged streets, many of the latter trees were planted by Red Rose Forest over 10 years ago.

There is the potential to plant up to 25 trees in Victoria Park but few locations where a significant number can be planted other than in the courtyard of Hulme Hall where 10 ornamental trees could be planted to form an avenue either side of the footpath.

It was also noted that there were several green spaces where small numbers of fruit trees including single specimens had been planted and whilst it was felt that larger specimen landmark trees could have made a significant impact here this opportunity was precluded by the existence of these trees. If it were considered appropriate these trees could be relocated to another venue to make way for 'landmark specimens'.

# North Campus - Visualisation of Tree Planting Next to the Sackville Building Before



### After



## Victoria Park - Visualisation of Tree Planting in Hulme Hall Courtyard

## Before



## After



#### 5.4 Wythenshawe Playing Fields – Key Opportunities

Wythenshawe playing fields covers a significant area and as such one would assume that there would be significant scope for tree planting. However, the priority would naturally be to maintain the function of the playing fields and as such large scale tree planting would not be compatible.

The two main opportunities here are for planting;

10 Hybrid Poplar trees to complement an existing line of Poplars to bridge the gap between the pedestrian bridge that crosses the motorway and a hedgerow. This would form a useful windbreak between the football pitches and the softball diamond.

Creating a woodland buffer of 300 whips between the pedestrian bridge and the changing rooms. In addition to providing a screen to the noise and air pollution of the adjacent M60 the woodland buffer would also provide a range of biodiversity benefits. There would also be the potential for involving students or adjacent communities in the planting of the whips.

Consideration should also be given to future successional planting on the linear woodland buffers on the perimeter of the playing fields as the trees that make up these buffers are of a similar age and reaching maturity.

#### 5.5 Whitworth Park – Key Opportunities

Whitworth Park has an excellent stock of mature trees many of which date back to the late 19<sup>th</sup> century. More than 80% of the mature trees are Ash which is a concern owing to the potential for Chalara fraxinea (Ash die back) to eventually impact on Manchester.

At this stage there are no signs of Chalara and the Ash appear to be in a good condition. However, it is recommended that a long term replacement strategy be devised which would involve planting secondary avenues of trees behind the existing avenues to help establish future replacement tree lined avenues should Chalara arrive. If this strategy were to be implemented it is recommended that there is a move away from a single species to reduce the potential impact from future species specific diseases. Also to give the new avenue trees the sufficient amount of light needed to get them established there may be the need for some canopy lifting / reduction on the adjacent Ash trees to allow light to permeate through.

During the redevelopment of the Whitworth Art Gallery 3 Ash trees adjacent to the south wing were damaged. It is recommended that these trees be assessed during the forthcoming growing seasons to determine whether the damage will result in their failure If replacement is

required 'specimen' ornamental species are recommended as these will add interest, diversity and improve site lines from the café in to the park.

The path that connects the south west corner of the park to the formal planting island in the middle of the park could benefit from an avenue planting scheme of up to 23 trees. Large fastigiate species are recommended as these would not encroach on to the adjacent open space which is in limited supply in the park and is well used by students and local residents alike for informal and more formal recreation.

A new community garden is currently being developed by staff at the Art Gallery in the north west corner of the park and will include small food growing areas. Consideration could be given to planting a mini orchard of up to 8 fruit trees there.

The western edge of the park, adjacent to the Manchester Academy School, has small areas of informally planted sapling trees. There is scope for two small copses of broadleaf, deciduous species totalling 50 trees. This would present a good opportunity for engaging pupils at the Academy in planting these trees.

#### 5.6 Brunswick - Key Opportunities

Brunswick presents some significant tree planting opportunities that have been proposed as part of the Brunswick PFI housing regeneration scheme plus additional opportunities identified from the Red Rose Forest surveying that are outside of the PFI boundary.

The Brunswick PFI landscaping proposals devised by S4B identified opportunities for 237 trees and 30 fruit trees. Many of the tree planting opportunities have been identified for gardens associated with the new housing and incremental green spaces. Additional planting is also proposed for Gartside Gardens with the main orchard being located in the centre of the PFI area adjacent to Rudcroft Close.

Road buffer planting opportunities include 15 trees next to the new town houses adjacent to Upper Brook Street and 25 trees for the Chorlton-on-Medlock flats next to the Mancunian Way.

Key additional planting opportunities noted from the surveying undertaken by RRF outside of the PFI include 7 medium sized species on the pavement opposite the nursery on Dryden Street. 23 trees either side of the public footpath across green space that connects Plymouth Grove to Brunswick. On the east side of Brunswick near the Apollo there is a large open space (bordered by Polygon Ave and Wilson Street) which connects the A6 to Thomson Street. There is the potential for 54 trees on the perimeter of this green space and sufficient space for an orchard of 15 trees.

Wythenshawe Playing Fields - Visualisation of Bund Tree Planting Next to the M60 Before



After



Whitworth Park – Visualisation of Copse Adjacent To Manchester Academy Before



After



Brunswick – Visualisation of verge trees in front of Town Houses on Upper Brook St Before



After



6.0 - Possible Sources of Funding / Community Engagement Opportunities

There are a number of funding bodies that are interested in supporting tree planting and

environmental projects, which could provide match funding for this project. The opportunities

identified below show an example of these funding bodies and amounts we can apply for. It

is likely that as the project begins other sources will also come to light. With a small amount

of seed funding to cover officer time Community Forest Trust could work in partnership with

the University of Manchester and local community groups where appropriate to try and

secure these funds.

1. Future Redevelopment

It is recommended that any future redevelopment proposals incorporate tree planting and

other Green Infrastructure opportunities as an integral component of the building masterplan

and where possible to specify this at a level that would be above the basic planning

conditions. This presents an excellent and perhaps 'one off' opportunity to deliver high

quality tree planting and other innovative Green Infrastructure interventions that would add

significant value to the Campus both in terms of the staff student experience and external

perceptions of the University.

2. HLF - Our Heritage £10k - £100k

Focus: To help protect and share the heritage

Application assessed within 8 weeks - Online application

http://www.hlf.org.uk/looking-funding/our-grant-programmes/our-heritage

3. Big Lottery - Reaching Communities - from £10k

Focus:

People have better chances in life, with better access to training and development to

improve their life skills,

• Stronger communities, with more active citizens, working together to tackle their problems,

· Improved rural and urban environments, which communities are better able to access and

enjoy,

· Healthier and more active people and communities

https://www.biglotteryfund.org.uk/prog reaching communities Application form

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4. The Steel Charitable Trust – up to £25k

Focus: Arts and Heritage; Education; Environment; Health; Social or Economic disadvantage. Online application

http://www.steelcharitabletrust.org.uk/

5. MCC Neighbourhood Investment Fund – up to £10k

Focus: Improving the environment and increasing recycling

https://secure.manchester.gov.uk/forms/form/1074/en/neighbourhood\_investment\_fund\_application Online application

6. HRUK and SUBWAY Healthy Hearts Grant - up to £10k

Focus: heart health – this could be linked to food growing (orchard) and physical activity with students and local community groups. This funding pot is closed for this year, but likely to open again next year.

http://heartresearch.org.uk/grants/apply-hruk-and-subway%C2%AE-healthy-heart-grants

Santander Foundation Community Plus – up to £5k

Focus: Must be a local project and benefit local disadvantaged people

http://www.santanderfoundation.org.uk/community-plus.aspx

Application form, to be taken to a local branch.

Although this funding pot is relatively small, there is a good chance of success - 1 in 3.

7. Landfill Tax

**Biffa Award** – Rebuilding Biodiversity – £10k – £50k

Focus: specific targets in relation to a Biodiversity Action Plan & management plan in place for the key species / habitat(s) involved

http://www.biffa-award.org/get-involved

**Viridor Credits** – Main grant £20k – £50k (UoM to be applicant)

Focus: Community, Heritage or Biodiversity projects.

http://www.viridor-credits.co.uk/apply-for-funding/

SITA Trust – Accessing Nature – up to £50k (UoM as landowner to be applicant)

Focus: create or improve physical access to a natural outdoor space & increase in the number of people who visit the outdoor space to experience and enjoy wildlife

http://www.sitatrust.org.uk/accessing-nature

#### 8. Fund raising by Students & Community Groups

In addition to the above there are fundraising activities that students and community groups such as 'The Friends of Whitworth Park' could participate in.

**Student fundraising** – Students could get involved in a number of ways such as: sponsored activities; bag-packing at local supermarkets; running a Crowdfunding appeal. Students could set up an environmental fundraising and volunteering group to investigate these and other options. The Student Union and other University communications networks could be useful in spreading the message and engaging people from adjacent communities.

Sponsorship by Alumni – the potential for tree sponsorship on campus could be explored. Red Rose Forest operates a Dedicate a Tree Scheme where donators can sponsor a tree although this is not a named or specific tree but one that is part of wider newly planted woodland. Their donation supports the cost of maintaining the trees and each sponsor receives a Dedicate Tree Certificate in the post. Something similar could be considered for new trees planted on campus where Alumni could be invited to sponsor the wider programme of tree planting and their support is acknowledged by a sponsorship certificate and or on a roll of sponsors on the University website.

Community Groups – The Friends of Whitworth Park could apply to some of the pots outlined above or in partnership with CFT or the University for funds for further tree planting in Whitworth Park

Similarly local community groups could access funding from the City Council's Neighbourhood Investment fund or other funding pots (as previously outlined) in partnership with RRF and the University. And specifically community groups could apply for;

#### 9. Trusthouse Charitable Trust - Up to £10k

Focus: urban deprivation (top 20% IMD); and Arts Education and Heritage projects in industrial areas which involve local people and have a demonstrable community benefit.

NB – applicant must have income under £500k – which rules out CFT or the University as applicant but a community group or 'friends-of' group with a bank account could apply.

#### http://www.trusthousecharitablefoundation.org.uk/

#### 10. Student / Staff / Community Engagement Opportunities

Planting trees in Whitworth Park or the Wythenshawe Playing fields presents an excellent opportunity for engaging with local schools and the wider community. This would provide a long term legacy and sense of ownership for the participants and would help to reduce the propensity for vandalism.

Likewise staff, students and school children could participate in tree planting in soft landscaped areas on campus. Student and staff volunteers (through the MLP) could help with carrying out basic maintenance works such as weeding and mulching around the base of the trees and removing suckering / epicormic growth. Red Rose Forest has over 24 years' experience of supervising public planting and maintenance activities of this type and has the requisite public liability insurance in place.

#### 7.0 - Conclusion / Recommendations

The University of Manchester campus is undergoing a major redevelopment programme which will create a world class learning facility fit for the 21st Century. The Oxford Road campus in particular has an excellent provision of green space and tree cover. A Green Infrastructure (GI) evidence based analysis of Manchester city centre carried out by RRF in 2012 found that the Oxford Road Corridor compartment had the highest level of tree cover by surface area of 14.2% compared to the City Centre total (for the 15 compartments) of 7.5%.

Tree cover is a key component in creating a high quality and sustainable campus environment and so it is essential that if trees are lost as a result of new build that these are replaced to ensure that there is no net loss of tree cover. Importantly any replacement trees should be planted to a size and specification that produces an immediate visual impact and achieves the specimen's growth potential. To further enhance the campus and reinforce the University of Manchester's drive for sustainability and providing benefit to its neighbouring residential communities increasing tree cover beyond the current pre-development levels would demonstrate this commitment.

Tree planting in an urban environment is no easy task as there are many constraints which can make this activity difficult and in some locations impossible. Planting trees in soft landscaped areas is always preferable as the conditions are generally closer to the tree's natural environment and there is less likelihood of underground services. However, this preference should not be used as justification for not planting on hard landscaped areas and in particular on the pavements adjacent to main roads. Planting pavement trees next to major highways such as Oxford Road will provide a major visual benefit to many thousands of people each day; can have a marked impact on air pollution and will create the kind of positive setting for attracting new investment and future student intake from all around the world. Planting trees in hard landscaped areas requires significant investment as these are inhospitable environments for trees but engineering large tree pits with measures to prevent compaction and aid the movement of water and air to the tree roots will help to ensure that pavement trees can survive and flourish.

The tree opportunity surveying demonstrated that there is significant scope to increase tree coverage by 874 trees in the City Centre campus (excluding Wythenshawe Playing Fields) but naturally there are not the resources available to plant all these trees en-masse over a short period of time. It is recommended therefore that the following opportunities be prioritised;

- New planting should be integral to each of the new campus developments
- Soft landscaped areas especially those adjacent to major highways such as Upper Brook Street and spaces where there is room for landmark trees such as the green space behind St Peter's House
- On pavements next to key transport corridors such as Oxford Road (following the completion of the Bus Priority Programme), Sackville Street and Upper Brook Street
- Locations that will create linkages to adjacent communities such as Booth Street,
   Denmark Road and the public footpath between Plymouth Grove and Brunswick

Oxford Road is the focus of large scale highway infrastructure improvements as part of the new Manchester Bus Priority Programme and there is a requirement to replace the trees that will be removed as part of this initiative. The tree replacement programme has been finalised by TfGM and Manchester City Council but the surveying carried out by RRF has identified additional potential planting locations on both the City Council highway (pavements) and University land. It is recommended that these additional locations are revisited after the Bus Corridor works have been completed.

The Brunswick PFI area has a huge potential for tree planting but at present there may not be sufficient resources available to realise all of these opportunities. There may be scope therefore, to work in partnership with the PFI to deliver tree planting in particular in mutually beneficial locations which will both benefit residents and the wider public such as in front of the new Town Houses on Upper Brook Street near the junction of Plymouth Grove.

Open spaces such as Wythenshawe Playing Fields and Whitworth Park present different opportunities as there is scope there to undertake small woodland planting, orchards and large specimen trees. Although these locations are not part of the built campus they provide good amenity space for residents and students and provide opportunities for communities to participate in planting activities.

Funding opportunities for tree planting are available from a variety of sources and the opportunity for accessing these funds is enhanced where a genuine community benefit can be demonstrated. There is also the scope for involving past and present students in fund raising activities whether through sponsorship, collections or crowd funding.

The production of the University of Manchester Tree Plan is at a very opportune moment as a watershed could soon be reached where tree loss from new development could have a marked impact on the overall feel and perception of the City Centre Campus. The extensive surveying work has demonstrated that there is the potential to address future trees loss and maintain and potentially build upon the traditional 'green' character of the University campus.

## **Appendices**

- Appendix 1 Tree Species information Small Trees
- **Appendix 2 Tree Species information Medium Trees**
- **Appendix 3 Tree Species information Large Trees**
- Appendix 4 Spreadsheet & Planting Maps Oxford Rd Corridor
- **Appendix 5 Spreadsheet & Planting Maps North Campus**
- **Appendix 6 Spreadsheet & Planting Maps Victoria Park**
- **Appendix 7 Spreadsheet & Planting Maps Wythenshawe Playing Fields**
- **Appendix 8 Spreadsheet & Planting Maps Whitworth Park**
- Appendix 9 Spreadsheet & Planting Maps Brunswick PFI
- Appendix 10 Spreadsheet & Planting Maps Brunswick Non PFI

## Appendix 1 – Tree species information – Small Trees

**Species**: Amelanchier arborea Robin Hill (Serviceberry)

**Description:** A small tree that forms a dense, oval habit and produces masses of spring flowers that open pink and turn white. The young leaves emerge coppery red and then harden to green by late spring before they turn vivid red in autumn. A very good choice for street planting and residential areas as it provides plenty of interest with virtually no maintenance required. Being such a small tree, it can be placed much closer to buildings than most trees which make it a fantastic choice for urban planting.

Mature height: 5-8m

Crown spread: 1-3m

**Tolerance:** Does best in moist, well drained, lime free soils. Suitable for both hard and soft landscaped areas.

Native: No (North America).

**Additional info:** A flowering tree that is good for pollinators such as bees.







Species: Betula pendula Youngii (Young's Weeping Birch)

**Description:** This small weeping Birch has no defined central leader and therefore eventually forms an attractive dome shape. The thin branches eventually reach the ground and the serrated, triangular leaves show good autumn colour. It develops a smooth white bark and is an attractive specimen tree for lawns.

Mature height: 5-10m

Crown spread: 2-4m

Tolerance: It grows well on most soils and has been a great favourite in the UK for many years.

Native: Yes.

**Additional info:** Although it sheds its leaves this tree provides winter interest via the creamy white bark.





**Species:** Corylus avellana (Hazel)

**Description:** Also known as the cobnut or Filbert, this is our native Hazel. A small tree with a rounded habit, it looks particularly striking in the early spring when it is adorned with its long yellow catkins. The tree produces nuts in the autumn.

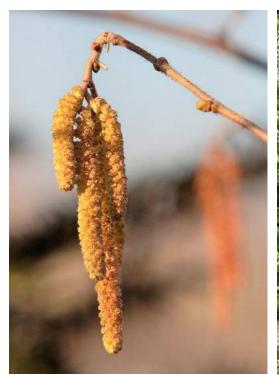
Mature height: 3-5m

Crown spread: 2-4m

**Tolerance:** A very good choice for gardens, parks and wildlife, but not hard landscaped areas.

Native: Yes.

**Additional info:** Good for bees and wildlife in general.





**Species:** Crataegus laevigata Pauls Scarlet (Hawthorn)

**Description:** This Hawthorn becomes smothered in stunning pink flowers in May and is a good choice for urban environments as it is tolerant of pollution. The abundance of flowers make this a great tree for pollinators.

Mature height: 5-8m

Crown spread: 1-3m

**Tolerance:** It does well in most soils, including very dry and wet soils. Suitable for hard and soft landscaped areas.

Native: Yes

Additional info: As root development can be rather slow, moderate pruning is recommended in the first few years after planting so

that good anchorage is achieved.





**Species**: Magnolia x loebneri Merrill (Magnolia)

**Description:** Small and of rounded habit, it has large, fragrant white flowers in spring that are produced in great abundance. Very attractive in both parks, hard areas and gardens, flower cases become visible after Christmas suggesting the promise that spring is round the corner.

Mature height: 5-10m

Crown spread: 3-4m

**Tolerance:** Does well in all soils, including chalky ones.

Native: No (USA)

Additional info: Flowering tree.







**Species**: Malus trilobata (Mediterranean Crab Apple)

**Description:** A wonderful tree for restricted spaces, its upright habit is retained into maturity. It has deeply lobed leaves which are maple-like and take on attractive burgundy tints in autumn. It produces large, white flowers and green fruits, which are sometimes flushed red. The fruits only appear following hot summers.

Mature height: 4-7m

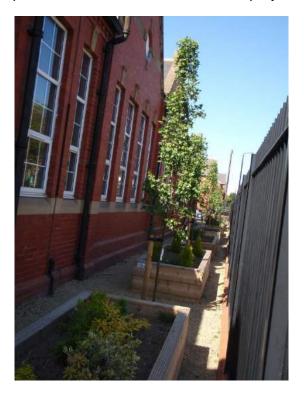
Crown spread: 1-2m

**Tolerance:** Will thrive in soft and hard landscaped areas.

Native: No (Mediterranean)

Additional info: A flowering tree that is good for pollinators such as bees. Also displays amazing autumnal colour.







**Species**: Parrotia persica (Persian Ironwood)

**Description:** A beautiful, small, rounded tree with grey-brown bark which becomes attractively mottled with yellow. This really is one of the finest small trees for autumn colour, giving a display of crimson, purple, red and gold.

Mature height: 5-10m

Crown spread: 4-6m

**Tolerance:** It does well on most soils, including chalk.

Native: No (Iran)

Additional info: A great choice for gardens and parks.







**Species**: Picea pungens Hoopsii (Colorado Blue Spruce)

**Description:** This form of Colorado Blue Spruce is slow growing but highly ornamental. Vividly glaucous blue leaves and dense conical habit make this small tree a real contrast in a garden or parkland setting.

Mature height: 5-10m

Crown spread: 2-5m

**Tolerance:** Like most conifers it prefers free draining soils.

Native: No (USA).

Additional info: It is so slow to grow that it is perceived as expensive for its size supplied but it offers a unique colour to a garden .







**Species**: Prunus serrula Tibetica (Tibetan Cherry)

**Description:** This cherry was introduced from Western China in the early 1900's and is one of the best trees available for bark interest. A fast growing, but small tree of rounded form. It has really shiny, mahogany-brown bark that gets more stunning with age. It has narrow, willow-like leaves and small, white flowers, which are produced in April.

Mature height: 5-10m

Crown spread: 2-4m

**Tolerance:** Like most cherries it thrives best on free draining soils.

Native: No (China)

**Additional info:** A good, flowering tree for bees with all year round interest provided via the amazing bark.





Species: Prunus shirotae (Mount Fuji Cherry)

**Description:** This cherry is sometimes referred to as Mount Fuji and was introduced to Britain in the early 1900s. Like most weeping varieties it gets better with age and at maturity it can be overwhelmingly stunning when seen in full flower against a blue spring sky. Gently weeping is perhaps the best way to describe the habit of this small, but vigorous tree. Green fringed foliage is followed by very large single and semi-double pure white flowers.

Mature height: 5-10m

Crown spread: 2-4m

**Tolerance:** Good for verges, parks and gardens, but not hard landscaped areas.

Native: No (Japan).

**Additional info:** A flowering tree that is great for bees.





**Species**: Prunus umineko (Ornamental Cherry)

**Description:** This flowering Cherry is a very good tree for the urban environment. Uminecko has a narrow, columnar form, which broadens with age and is a very good choice for hard or soft landscaped areas with restricted space. Single white flowers are produced in April, along with the foliage, which colours very well in Autumn.

Mature height: 5-10m

Crown spread: 2-4m

**Tolerance:** A robust and vigorous tree that thrives best on free draining soils.

Native: No (Asia)

**Additional info:** A great tree for bees.







Species: Sorbus aria Mitchellii (Whitebeam - clone)

**Description:** This small tree with a rounded habit has dark green leaves with white undersides that can get up to 15cm long and broad. A great tree for providing contrast in a garden environment.

Mature height: 5-8m

Crown spread: 2-4m

Tolerance: Thrives on most free draining soils and will do well in hard or soft landscaped areas.

Native: No (Himalayas/Western China).

**Additional info:** This tree is good for the honey bee and provides lots of nectar throughout the summer months.





Species: Tilia mongolica (Mongolian Lime)

**Description:** This tree is most unlike the general look of the rest of the Lime family and is also aphid resistant. It has all the durability of Lime, but is of a size that makes it ideal for urban planting where space is limited. It has small, serrated, glossy, green leaves, which are similar to those of Ivy. These leaves then turn to a clear and delicate yellow in autumn.

Mature height: 7-10m

Crown spread: 2-4m

**Tolerance:** Hardy. Will do well in hard and soft landscaped areas.

Native: No (Mongolia).

Additional info: Requires little maintenance and as the leaves are so small there is not much leaf litter to contend with.





Species: Ulmus glabra Camperdownii (Camperdown Elm)

**Description:** The Camperdown Elm is a form of Wych Elm. A small weeping tree with a dome shaped head; it looks good growing in a lawn in parks and gardens. It remains neat and compact, and is generally considered to be resistant to Dutch Elm Disease but only because it doesn't attain the height to attract the infecting beetle.

Mature height: 5-10m

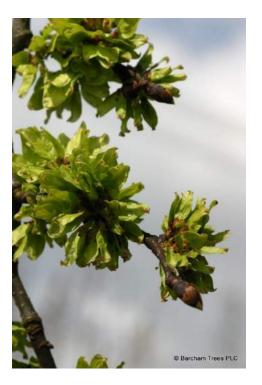
Crown spread: 2-3m

**Tolerance:** Will thrive in soft landscaped areas.

Native: Yes.

Additional info: It produces clusters of attractive hop like flowers in the spring.





## Appendix 2 – Tree Species Information – Medium Trees

Species: Alnus glutinosa (Common Alder)

**Description:** A medium sized native tree that has a conical growth habit and produces yellow catkins in March. Being a native tree it is a wonderful host to a wide range of wildlife. It is a very useful variety to plant where the ground os liable to flood and survives many weeks with its root underwater.

Mature height: 15-20m

Crown spread: 5-10m

**Tolerance:** Its natural habitat is boggy land and river banks however it is also very good for urban planting as it thrives in all soils and tolerates air pollution.

Native: Yes.

**Additional info:** A useful variety to plant where the ground is liable to flooding or boggy because of its water tolerance.





**Species**: Alnus incana Aurea (Grey Alder cultivar)

**Description:** A must for any garden in need of winter interest. The young shoots and leaves emerge a golden yellow in spring which contrast beautifully with vivid red catkins that open to a pink/yellow. The catkins form as early as August and get better in colour and size throughout the winter. The bark and twiggy branches also turn orange during the winter. Good as a street tree and for parks and gardens.

Mature height: 10-15m

Crown spread: 4-7m

Tolerance: Does best in moist soil and semi-shaded areas.

Native: No (Europe)

Additional info: As the catkins show early this is one of the few trees that legitimately offers all year round interest. Good for bees.







**Species**: Betula albosinensis Fascination (Chinese Birch)

**Description:** A medium sized tree, becoming oval as it matures, with stiffly ascending branches, making a great choice for parks and verges. It has outstanding stem colour – orange peeling to pink and cream and then purest white once the tree gets beyond 30cm growth. The leaves are large (for Birch) and dark green, appearing in April, along with the showy display of yellow catkins. The catkins grow up to 10cm in length, opening to a rich yellow-brown.

Mature height: 10-15m

Crown spread: 3-5m

Tolerance: Excellent for urban plantings, it grows well on most soils.

Native: No (Himalayas)

**Additional info:** Winter interest is provided via the gleaming white bark.





Species: Betula ermanii (Ermans Birch)

**Description:** The leaves of this Birch are some of the earliest to emerge in the spring and one of the first to fall in the autumn. An elegant and vigorous medium to large tree, the bright green, often heart shaped and prominently veined leaves become clear yellow in autumn. Retains a narrow canopy at maturity.

Mature height: 15-20m

Crown spread: 3-5m

Tolerance: It tolerates reflected heat and light very adequately so is a great urban tree that requires little maintenance.

Native: No (Asia)

Additional info: Year round interest is provided via the trees bark which peels, and is creamy white in colour.





**Species**: Betula pendula Fastigiata (Upright Birch)

**Description:** An upright form of the Silver Birch, it tends to spiral its way upwards giving a corkscrew effect of twiggy birch branches that hold their leaves slightly longer than most other varieties. This medium sized tree has stiffly ascending branches which give it a columnar habit.

Mature height: 10-15m

Crown spread: 2-3m

Tolerance: Grows well on most soils

Native: Yes

Additional info: It makes a good street and car park tree because it requires little space





**Species**: Betula utilis Jacquemontii (Himalayan Birch)

**Description:** This tree is medium sized and has ascending branches with dark green leaves that turn golden yellow in autumn. The bark of the Himalayan Birch is a stunning ,gleaming white that stands out from a distance in any setting.

Mature height: 15-20m

Crown spread: 3-6m

**Tolerance:** Excellent for urban plantings, it grows well on most soils.

Native: No (Himalayas).

Additional info: Winter interest is provided via the gleaming white bark.







**Species**: Carpinus betulus Fastigiata Franz Fontaine (Fastigiate Hornbeam)

**Description:** A far better proposition for planting in restricted areas than Carpinus betulus Fastigiata, it retains its columnar habit, being only 3m wide after 25 years. A tree of medium size and pyramidal habit, it produces gold and orange autumn colours.

Mature height: 10-15m

Crown spread: 3-4m

**Tolerance:** It tolerates pollution and soil compaction, so makes an excellent street tree. It grows well on most soils including clay

and chalk.

Native: No (Netherlands).

Additional info: A most useful and reliable tree for poor planting conditions.





**Species**: Castanea sativa Variegata (Variegated Sweet Chestnut)

**Description:** A beautiful sweet chestnut that grows slower and is of a smaller ultimate size than its parent. Similar in other respects to the species, but with yellow edged leaves. Its distinctive foliage makes it very good as a specimen tree.

Mature height: 15-20m

Crown spread: 5-10m

**Tolerance:** It does best on reasonably dry, light soils, and is moderately lime tolerant.

Native: No (Southern Europe/North Africa).

Additional info: Sweet Chestnuts can be very long lived and are drought resistant, so are a good choice for light soils.





**Species**: Davidia involucrata (Handkerchief Tree)

**Description:** Considered to be one of the great beauties of the plant world. Its common name derives from the large white bracts which appear in May. These are followed by large, oval fruits in autumn. Foliage and habit are similar to those of the lime. A medium to large tree, it is very good for parks and does best in a fairly sheltered position.

Mature height: 10-15m

Crown spread: 4-8m

**Tolerance:** Thrives best on less exposed sites and is best pruned lightly in the summer rather than when it is dormant in the winter. Growing tips can frost off if subjected to icy winds and invariably the best specimens are seen nestled away in a comfy sheltered spot.

Native: No (China).

Additional info: Flowering tree.







**Species**: Eucalyptus niphophila (Snow Gum)

**Description:** An attractive Eucalyptus with grey, green and cream patchwork. Its leaves are narrow and grey-green when matured and it is well suited as a specimen tree to provide soft contrasts in parks and large gardens. It is slower growing than the more common Eucalyptus gunnii but it forms an excellent architectural shape of patchwork stems.

Mature height: 10-15m

Crown spread: 3-6m

Tolerance: Thrives on most soils.

Native: No (Australia)

Additional info: Good for bees.



Species: Fagus sylvatica Pendula (Weeping Beech)

**Description:** An excellent choice for parks and gardens. This medium to large tree has a majestic crown with large, horizontal and pendulous branches which gives the tree a unique architectural beauty. Beech thrives just about anywhere other than exposed and coastal locations.

Mature height: 10-15m

Crown spread: 5-10m

**Tolerance:** Will thrive just about anywhere other than exposed and coastal locations

Native: No (Unknown)

**Additional info:** Mature specimens have been known to weep to the ground and then layer up from the soil to weep again when a new trunk is formed. With this in mind they can get quite big over the long term so ensure enough space is provided.







**Species**: Ginkgo biloba Lakeview (Maidenhair Tree)

**Description:** This tree develops a compact pyramidal habit that is well suited for urban planting as it requires little maintenance so long as the well defined leader is left uninterrupted. Particularly useful for narrow streets, this clone is well suited to deal with the reflected heat and light that bounces off pavement and buildings. It produces a great display of vivid yellow autumn colour.

Mature height: 15-20m

Crown spread: 5-8m

**Tolerance:** An extremely tough tree, it tolerates pollution and reflected heat and light in urban environments.

Native: No (Asia).

**Additional info:** This Ginkgo variety is grown as a male clone, thus negating the issue found with female Ginkgos' that produce strong, unpleasant smelling fruit.





**Species**: Ligustrum lucidum Variegata (Variegated Chinese Privet)

**Description:** A good choice for urban settings and ideal for planting close to a fence line to provide screening cover over the fence height. A most striking, top worked form with a rounded habit. A small semi-evergreen tree, it has long pointed gold margined leaves and white flowers, which are borne in autumn.

Mature height: 5-7m

Crown spread: 4-6m

Tolerance: Very good in restricted areas and it thrives on most soils.

Native: No (China).

Additional info: Semi-evergreen tree, can be used for screening.







**Species**: Liquidambar styraciflua Lane Roberts (Sweetgum)

**Description:** A medium sized tree, it has a tight conical habit and large leaves that makes a good choice as a street or garden tree. The autumn colour of the foliage is sensational; the leaves turn relatively slowly from a dark crimson to red.

Mature height: 10-15m

Crown spread: 3-5m

**Tolerance:** Suitable for both hard and soft landscaped areas. It does best in fertile, well drained soils, but does not thrive in chalky soils.

Native: No (North America).

Additional info: When planted en masse the autumn effect is fantastic.





**Species**: Liquidambar styraciflua Manon Variegata (Sweet Gum)

**Description:** A must for those who like their variegated trees. The striking foliage is best in summer and can provide excellent contrast against a dark evergreen background. A medium sized tree, with horizontal lateral branches, it forms a very regular, pyramidal form. Its blue-green foliage, with a creamy white margin, turns pink in autumn.

Mature height: 15-20m

Crown spread: 4-6m

Tolerance: Suitable for streets, avenues and parks, it does best in well drained, fertile soil. It does not thrive in chalky soils.

Native: No (North America).

Additional info: Resistant to both pests and disease.





Species: Liquidambar styraciflua Stella (Sweet Gum)

**Description:** This Sweet Gum with deeply cut star-like leaves is prized for its autumn colour and is a wonderful tree for a medium to large garden. The bright green foliage of spring and summer turns from golden yellow through to crimson as autumn progresses. Stella is a medium sized tree of pyramidal habit.

Mature height: 10-15m

Crown spread: 4-6m

**Tolerance:** Suitable for streets, avenues and parks, it does best in well drained, fertile soil. It does not thrive in chalky soils.

Native: No (North America).

Additional info: Its bark is smooth rather than corky.







Species: Magnolia grandiflora (Southern Magnolia)

**Description:** Capable of becoming a medium to large tree if given full sun and a sheltered position, it is a magnificent, round headed specimen. The large, cream flowers, which are delicately scented, are borne through summer and into autumn, set against dark green almost leathery leaves. From being associated with south facing wall plantings, this wonderful evergreen has crept into the wider landscape in recent years with the advent of warmer summers and not so punishing winters.

Mature height: 10-15m

Crown spread: 4-8m

Tolerance: It does best in rich, fertile soil and, given this, will tolerate lime

Native: No (USA)

Additional info: Can be used for raised screening







**Species**: Nothofagus antarctica (Antarctic Beech)

**Description:** This Beech is a fast grower, and when in leaf it is often mistaken for an evergreen tree. Its bark is dark and covered with attractive white lenticels. Of rounded habit and medium to large size, this has small, heart shaped leaves which turn yellow as the year progresses.

Mature height: 15-20m

Crown spread: 5-10m

**Tolerance:** Does best in a sunny position and fairly fertile soil. It will not tolerate planting in calcareous soils.

Native: No (Chile).

Additional info: Very good for parks and public spaces.







**Species**: Paulownia tomentosa (Foxglove Tree)

**Description:** One of the most spectacular of ornamental flowering trees, the Foxglove Tree takes its name from the foxglove-like flowers, which are formed in autumn, but do not open until the following spring. It is so quick to grow in its younger years that its growth rings have been recorded at 3 every inch. However our more temperate climate slows it down and any growth under pencil thickness generally succumbs to winter frosts which contribute to its overall broadness. A fast growing, medium sized tree, it does best in a sunny, reasonably sheltered site, where it will produce a breathtaking display of violet-blue and yellow flowers in May once its established. Its large, hairy leaves can reach 30cm or more across.

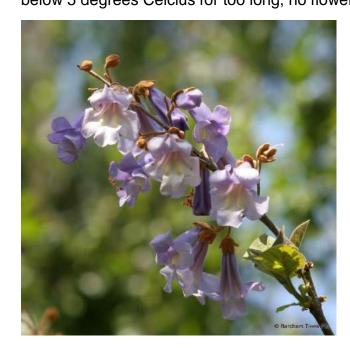
Mature height: 10-15m

Crown spread: 7-10m

**Tolerance:** Does better in soft landscaped areas.

Native: No (China).

**Additional info:** The flower cases are formed in the autumn so if the temperature dips below 5 degrees Celcius for too long, no flower will develop the following spring.







**Species**: Pinus sylvestris Fastigiata (Sentinel Pine)

**Description:** A wonderfully columnar form of Scots Pine, so tight in habit that one it requires a close up view to identify it. The needles appear almost blue when young giving it a highly ornamental feel.

Mature height: 10-15m

Crown spread: 2-3m

**Tolerance:** Naturally occurring in Europe, it can reach over 10m tall if it isn't hampered by snow and ice build up which can cause it to fracture. However, there are no such problems in the UK.

Native: Yes.

Additional info: Evergreen tree.







**Species**: Populous tremula Erecta (Swedish Upright Aspen)

**Description:** Similar in shape and habit to the Lombardy Poplar it offers far more ornamental interest with bronze foliage emerging in April once the long catkins have finished. A tightly columnar tree that is very suitable for planting in the urban environment. The trembling leaves turn a lovely orange yellow in the autumn and it requires little maintenance.

Mature height: 15-20m

Crown spread: 3-5m

Tolerance: Hardy.

Native: No (Sweden).

Additional info: The architectural shape of this tree is very striking within a landscape and tends to draw the eye with its symmetry.



**Species**: Pyrus calleryana Chanticleer (Ornamental Pear)

**Description:** One of the best ornamental pears with much to recommend it. It is of medium height, generally rather columnare, becoming more oval when mature. Abundant blossom is produced as early as March, followed by glossy foliage which is late to fall in autumn, when it turns orange and red. It makes a fine street tree, and is tolerant of air pollution.

Mature height: 10-15m

Crown spread: 3-5m

**Tolerance:** Suitable for both hard and soft landscaped areas.

Native: No (North America).

Additional info: Foliage is so early to appear in spring and so late to fall in autumn it has excellent screening uses.





Species: Sorbus aucuparia Cardinal Royal (Rowan)

**Description:** The ascending branches of this medium sized tree give it a columnar habit at maturity which makes it a very good Rowan clone for restricted areas. It is also more tolerant of reflected heat and light associated with urban planting, than the species. White flowers in May are followed by red berries in late summer, which are readily consumed by wild birds.

Mature height: 10-15m

Crown spread: 4-5m

**Tolerance:** Very good for streets, urban plantings and gardens. It will thrive on most soils including acid ones.

Native: No (North America).

Additional info: Provides nectar for bees and berries for birds!





**Species**: Sorbus intermedia Brouwers (Swedish Whitebeam)

**Description:** This tree has a pyramidal crown, is of medium size, and has single, dark green leaves that have silver-grey undersides. White flowers in May produce orange-red fruits.

Mature height: 10-15m

Crown spread: 4-7m

**Tolerance:** It is wind resistant and tolerant of calcareous soils and air pollution, making this a really tough tree. It will thrive in even the harshest conditions.

Native: No (Sweden).

**Additional info:** White flower, good for bees.





## Appendix 3 – Tree Species Information – Large Trees

**Species**: Acer x freemanii Autumn Blaze (Maple cultivar)

**Description:** This vigorous, oval headed, large tree has dark green, deeply indented leaves, which turn rich flame red in autumn. This tree looks pretty but is also very tough so is ideal for urban plantings.

Mature height: 20m +

Crown spread: 5-10m

Tolerance: It is slightly brittle, so planting sites exposed to strong and persistent winds should be avoided.

Native: No (USA)

Additional info: A highly dramatic tree, rivalling even Liquidambar for autumn colour.





**Species**: Corylus colurna (Turkish Hazel)

**Description:** The tree is columnar when young before broadening to a symmetrical pyramid on reaching maturity. Notable for its rough, textured, corky bark, it produces long, yellow catkins in early spring and clusters of fringed nuts in Autumn. A superb choice for large gardens and avenue planting.

Mature height: 20m +

Crown spread: 5-8m

**Tolerance:** It thrives in all soils, including chalky and clay soils and is now used in cities as a substitute for Lime to combat the problem of aphid drop on cars and pavements. Will also tolerate paved areas.

Native: No (South East Europe and West Asia).

Additional info: Good for bees.





**Species**: Fagus sylvatica Purpurea (Purple Beech)

**Description:** A superb tree for creating contrast in a parkland or large garden as the darkness of the foliage draws the eye through the landscape. It has deep purple leaves and is a tree of great beauty.

Mature height: 20m +

Crown spread: 5-10m

**Tolerance:** It does well in most reasonably fertile, well drained soils, except heavy clay or light sand.

Native: Yes.

Additional info: Sometimes referred to incorrectly as "Copper Beech", which is seed grown and variable in leaf colour.







**Species**: Ginkgo biloba (Maidenhair Tree)

**Description:** A large conical tree that remains relatively narrow into maturity. A good choice for parks and avenues, it tolerates paved areas as well. It has a deep root system and curious, fan shaped leaves that turn from a light green to deep yellow in the autumn.

Mature height: 20m +

Crown spread: 5-10m

**Tolerance:** An extremely tough tree, it tolerates pollution and reflected heat and light in urban environments.

Native: No (Asia)

**Additional info:** Female plants fruit after 35 years or so and it is not possible to determine the gender until this event. Male plants should be sought were possible as they do not produce the strong, acrid smelling fruits.





Species: Juglans nigra (Black Walnut)

**Description:** Introduced from native central and eastern America into Europe in 1629, it is fast growing and makes a large tree with a broadly pyramidal crown. It is also a very good choice for parkland settings. It has a rough bark, unlike Common Walnut.

Mature height: 20m +

Crown spread: 7-10m

**Tolerance:** It grows well on most soils but thrives on deep loam.

Native: No (Central and Eastern America).

Additional info: It produces an abundance of nuts over a long period.







Species: Liquidambar styraciflua (Sweetgum)

**Description:** One of the finest trees for autumn colour. Sometimes confused with Maple on account of its similar leaves, this makes a large tree with a broad, pyramidal crown if its central leader is retained. Its attractive, corky bark is a feature at all times of the year, but it is at its magnificent best in autumn when it simply seems to burn with crimson and gold.

Mature height: 20m +

Crown spread: 4-8m

**Tolerance:** Suitable for streets, avenues and parks, it does best in fertile, well drained soils. It does not thrive in chalky soils.

Native: No (North America).

Additional info: Even more spectacular when planted in an avenue.





**Species**: Liriodendron tulipifera (Tulip Tree)

**Description:** A large and fast growing tree, it has a broad, pyramidal crown. The tulip shaped flowers, which appear only on older trees, are produced in June and July and are yellow-green with a band of orange at the base. Leaves turn a magnificent yellow in the autumn.

Mature height: 20m +

Crown spread: 5-10m

Tolerance: Suitable for both hard and soft landscaped areas. It is deep rooted and wind resistant, and does well on most fertile

soils.

Native: No (North America)

Additional info: Apparently excellent honey is derived from bees harvesting its flowers.





**Species**: Pinus sylvestris (Scots Pine)

**Description:** The Scots Pine is the only Pine native to Britain. A familiar sight in bleak and inhospitable landscapes, it can be grown as a tall stemmed or low, spreading subject. Its paired needles can be very variable in colour from green to almost blue, especially when juvenile. This large evergreen tree is distinctive by its tall, bare trunk and broadly pyramidal crown. It is best suited in parks, gardens, heathland and woodlands.

Mature height: 20m +

Crown spread: 5-10m

**Tolerance:** It is tolerant of most soils but never reaches its true potential in areas prone to flooding.

Native: Yes.

**Additional info:** It is very quick to develop a symbiotic relationship with mycorrhiza which helps sustain vigorous growth.





**Species**: Platanus x hispanica (acerifolia) (London Plane)

**Description:** First recorded in the early 1660's, the London Plane was extensively planted as a street tree in London due to its tolerance of air pollution and of pruning. It is believed it was significantly responsible for clearing up the smog laden air resulting from the industrial revolution. A large, fast growing tree with a broadly oval crown. The leaves are large, deeply lobed and palmate. The rounded fruit clusters, produced in strings, resemble little baubles, which hang from the branches for much of the year.

Mature height: 20m +

Crown spread: 7-10m

**Tolerance:** Thrives in both hard and soft landscaped areas.

Native: No (Asia/North America/Southern Europe).

Additional info: One of its main features is the trunk, which flakes to reveal a patchwork of green, white and cream.







Species: Quercus frainetto (Hungarian Oak)

**Description:** This is a large tree with a broad, rounded crown. Its fissured bark and large, dark green leaves, which are boldly cut and regularly lobed, makes this a most striking subject for parks and woodlands.

Mature height: 20m +

Crown spread: 5-10m

**Tolerance:** It does best on moist soils, but will tolerate chalky ones.

Native: No (Southern Europe).

Additional info: Recommended as an avenue tree.





**Species**: Quercus ilex (Holm Oak)

**Description:** The Holm Oak is an evergreen tree that forms a densely rounded habit. It tolerates shade and air pollution and is one of the most majestic of evergreen trees grown in the UK.

Mature height: 20m +

Crown spread: 5-10m

**Tolerance:** Suitable for parks and gardens but thriving best on free draining soil.

Native: No (Southern Europe).

Additional info: The timber is hard and long-lasting, used for joinery, vine-props and for charcoal.





Species: Salix alba Tristis (Golden Willow)

**Description:** The beautiful and much admired Weeping Willow has several botanical names and is actually a hybrid of three different types of Willow. It is a large, weeping and wide spreading tree, often seen close to water as it does so well in wet soils. The narrow, pale green leaves are early to flush in the spring and late to fall in the autumn. A fast grower well suited to parks.

Mature height: 20m +

Crown spread: 7-10m

Tolerance: Thrives on wet soils.

Native: No (Germany).

Additional info: Do not plant near water mains due to the trees propensity to seek out water.





## Appendix 4 – Spreadsheet & Planting Maps – Oxford Rd Corridor

Reference Number	Location	Soft or Hard Landscape	Site ownership	Suggested tree species - small/medium/whip	Tree guard required Yes/No	Approx. cost £	Comments
OR1	Denmark Road, outside of 46-64	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR2	Denmark Road, outside of 46-64	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR3	Denmark Road, outside of 46-64	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR4	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR5	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR6	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR7	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR8	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR9	Denmark Road, outside of Sanctuary Students accommodation	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR10	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR11	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR12	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR13	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR14	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR15	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR16	Denmark Road, outside of Denamrk Road Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx 3m wide
OR17	Outside of Grove House	Hard	University	Small	Yes	3,000	Ornamental tree recommended
OR18	Outside of Grove House	Hard	University	Small	Yes	3,000	Ornamental tree recommended
OR19	Outside of Grove House	Hard	University	Small	Yes	3,000	Ornamental tree recommended
OR20	Outside of Grove House	Hard	University	Small	Yes	3,000	Ornamental tree recommended
OR21	Outside of Grove House adjacent to the cycle lane	Hard	Manchester City Council	Medium	Yes	3250	
OR22	Outside of Grove House adjacent to the cycle lane	Hard	Manchester City Council	Medium	Yes	3250	
OR23	Outside of Grove House on the pavement adjacent to the bus stop	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road

Car nark south of Devas Street	Hard	University	Medium	Ves	3250	
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		·				
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Grassed area between Arts Building and Humanities Building	Soft	University	Small	Yes	750	Small - medium sized tree would provide variety to canopy levels in this area as most existing trees are large with tall canopies
Grassed area between Arts Building and Humanities Building	Soft	University	Small	Yes	750	Small - medium sized tree would provide variety to canopy levels in this area as most existing trees are large with tall canopies
Grassed area between Arts Building and Humanities Building	Soft	University	Small	Yes	750	Small - medium sized tree would provide variety to canopy levels in this area as most existing trees are large with tall canopies
Lime Grove	Hard	University	Small	Yes	3000	
Lime Grove	Hard	University	Small	Yes	3000	
Rear of Alan Gilbert Learning Commons, off Lime Grove	Hard	University	Medium	Yes	3250	Space for landmark tree
Oxford Road, outside of Alan Gilbert Learning Commons	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Alan Gilbert Learning Commons	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
	Grassed area between Arts Building and Humanities Building  Grassed area between Arts Building and Humanities Building  Lime Grove Lime Grove Rear of Alan Gilbert Learning Commons, off Lime Grove  Oxford Road, outside of Alan Gilbert Learning Commons  Oxford Road, outside of Alan Gilbert Learning Commons  Oxford Road, outside of Manchester Museum  Oxford Road, outside of Manchester Museum  Oxford Road, outside of Manchester Museum  Oxford Road, outside of Manchester Museum	Car park south of Devas Street Hard  Grassed area between Arts Building and Humanities Building Soft  Soft  Grassed area between Arts Building and Humanities Building Lime Grove Hard Lime Grove Hard Car park south of Devas Street Hard  Coxford Road, outside of Alan Gilbert Learning Commons Hard  Oxford Road, outside of Alan Gilbert Learning Commons Hard  Oxford Road, outside of Manchester Museum Hard	Car park south of Devas Street Hard University  Grassed area between Arts Building and Humanities Building and Humanities Building  Grassed area between Arts Building and Humanities Building  Grassed area between Arts Building and Humanities Building  Grassed area between Arts Building and Humanities Building  Lime Grove Hard University  Lime Grove Hard University  Rear of Alan Gilbert Learning Commons, off Lime Grove Hard University  Rear of Alan Gilbert Learning Commons Hard University  Oxford Road, outside of Alan Gilbert Learning Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council  Oxford Road, outside of Manchester Museum Hard Manchester City Council	Car park south of Devas Street Car park south of Device Street Car park south of Devas Street Car park south of Devas Street	Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes Car park south of Devas Street Hard University Medium Yes University Medium Yes University Small Yes University Medium Yes University Medium Yes University Medium Yes Medium Yes University Medium Yes Medium Yes University Medium Yes Medium Yes Medium Yes Oxford Road, outside of Alan Gilbert Learning Commons Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes Oxford Road, outside of Manchester Museum Hard	Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250 Car park south of Devas Street Hard University Medium Yes 3250  Grassed area between Arts Building and Humanities Building and Humanities Building Medium Yes 750  Grassed area between Arts Building and Humanities Building Medium Yes 750  Grassed area between Arts Building and Humanities Building Medium Yes 750  Grassed area between Arts Building Arts Medium Yes 750  Grassed area between Arts Building Arts Medium Yes 750  Lime Grove Hard University Small Yes 3000 Lime Grove Hard University Small Yes 3000  Rear of Alan Gilbert Learning Commons, off Lime Grove Hard University Medium Yes 3250  Oxford Road, outside of Alan Gilbert Learning Commons Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Alan Gilbert Learning Commons Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes 3250  Oxford Road, outside of Manchester Museum Hard Manchester City Council Medium Yes 3250

OR43	Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR44	Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR45	Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR46	Oxford Road, outside of Manchester Museum	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR47	Oxford Road, outside of 186/188	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR48	Oxford Road, outside of 184/186	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR49	Oxford Road, side of 176	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR50	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR51	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR52	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR53	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR54	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR55	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	
OR56	Booth Street West, outside of Manchester Business School	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road

OR57	Booth Street West, outside of Manchester Business School	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR58	Booth Street West, outside of Manchester Business School	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR59	Booth Street West, outside of Manchester Business School	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR60	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR61	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR62	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR63	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR64	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR65	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR66	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR67	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR68	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR69	Booth Street West, adjacent to Royal Northern College of Music	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR70	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park

OR71	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park
OR72	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park
OR73	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park
OR74	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park
OR75	Grafton Street, adjacent to Multistorey car park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and multi-storey car park
OR76	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR77	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR78	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR79	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR80	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR81	Upper Brook Street, adjacent to Innovation centre	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR82	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and Innovation Centre
OR83	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and AV Hill Building
OR84	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and AV Hill Building
OR85	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and AV Hill Building

OR86	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and AV Hill Building
OR87	Adjacent to AV Hill Building (on the Upper Brook St elevation)	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to road and AV Hill Building
OR88	Oxford Road, outside of Holy Name RC Church	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR89	Oxford Road, outside of Holy Name RC Church	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR90	Oxford Road, outside of Holy Name RC Church	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road
OR91	Oxford Road, grassed areas outside of Bank/St Pauls House	Soft	University	Small	Yes	750	Ornamental species
OR92	Oxford Road, grassed areas outside of Bank/St Pauls House	Soft	University	Small	Yes	750	Ornamental species
OR93	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.
OR94	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.
OR95	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.
OR96	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.
OR97	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.
OR98	Upper Brook Street adjacent to Michael Smith Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to busy road and Michael Smith Building. Plant tree at front of pavement.

OR99	Dover Street, grassed verge opposite Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR100	Dover Street, grassed verge opposite Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR101	Dover Street, grassed verge opposite Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR102	Outside of Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR103	Outside of Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR104	Outside of Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR105	Outside of Zochonis Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR106	Dover Street, grassed verge opposite Chemistry Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR107	Dover Street, grassed verge opposite Chemistry Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR108	Dover Street, grassed verge opposite Chemistry Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR109	Dover Street, grassed verge opposite Chemistry Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.

OR110	Dover Street, grassed verge opposite Chemistry Building	Soft	University	Small	Yes	750	2 mature Hawthorns (Crataegus spp) are found in close proximity to this location. A variety of Hawthorn would be ideal here.
OR111	Upper Brook Street, adjacent to Chemistry Building, north of the bus stop	Hard	University	Medium	Yes	3250	Species with small leaves and not too dense canopy suggested to ensure tree doesn't block out natural light to the Chemistry building. i.e. Betula spp (Birch)
OR112	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR113	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR114	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR115	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR116	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR117	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR118	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR119	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR120	Oxford Road, outside of University Place	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate Hawthorn recommended due to proximity to main road. Plant at front of pavement.
OR121	Oxford Road, outside of Kilburn Building	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road

OR122	Oxford Road, outside of Kilburn Building	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR123	Oxford Road, outside of Kilburn Building	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR124	Oxford Road, outside of Kilburn Building	Hard	University	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR125	Oxford Road, between Kilburn Building and St Peters House	Hard	Manchester City Council	Medium	Yes	3250	
OR126	Next to seating area between George Kenyon Building and Alan Turing Building	Hard	University	Medium	Yes	3250	Close to a large line of Oak trees running from Oxford Rd to George Kenyon Building.
OR127	Next to seating area between George Kenyon Building and Alan Turing Building	Hard	University	Medium	Yes	3250	Close to a large line of Oak trees running from Oxford Rd to George Kenyon Building.
OR128	Next to seating area between George Kenyon Building and Alan Turing Building	Hard	University	Medium	Yes	3250	Close to a large line of Oak trees running from Oxford Rd to George Kenyon Building.
OR129	Next to seating area between George Kenyon Building and Alan Turing Building	Hard	University	Medium	Yes	3250	Close to a large line of Oak trees running from Oxford Rd to George Kenyon Building.
OR130	Grassed area to the rear of St Peters House	Soft	University	Large	No	1250	Landmark tree opportunity
OR131	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR132	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR133	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR134	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR135	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR136	Alongside path to the rear of St Peters House	Soft	University	Small	No	750	Tree would form part of an avenue alongside the footpath
OR137	Quadrangle behind Crawford House	Soft	University	Small	No	750	Ornamental. Perhaps Olive tree to compliment 3 existing Olives in the quadrangle

OR138	Adjacent to Aquatics Centre Multi-storey Car park	Soft	University	Large	Yes	1250	Multi-storey car park is surrounded by well established Dawn Redwoods (Metasequoia glyptostroboides), for consistency this tree should be the same species
OR139	Booth Street East, adjacent to Crawford House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR140	Booth Street East, adjacent to Crawford House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR141	Booth Street East, adjacent to Crawford House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR142	Booth St East, grassed area between Graphene Institute and Crawford House Lecture Theatres	Soft	University	Medium	Yes	1000	2 existing cherry trees on the same patch of grass. Cherry species (Prunus spp) recommended
OR143	Booth St East adjacent to Manchester School of Management Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR144	Booth St East adjacent to Manchester School of Management Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR145	Booth St East adjacent to Manchester School of Management Building	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species recommended due to proximity to main road
OR146	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR147	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR148	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR149	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR150	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road

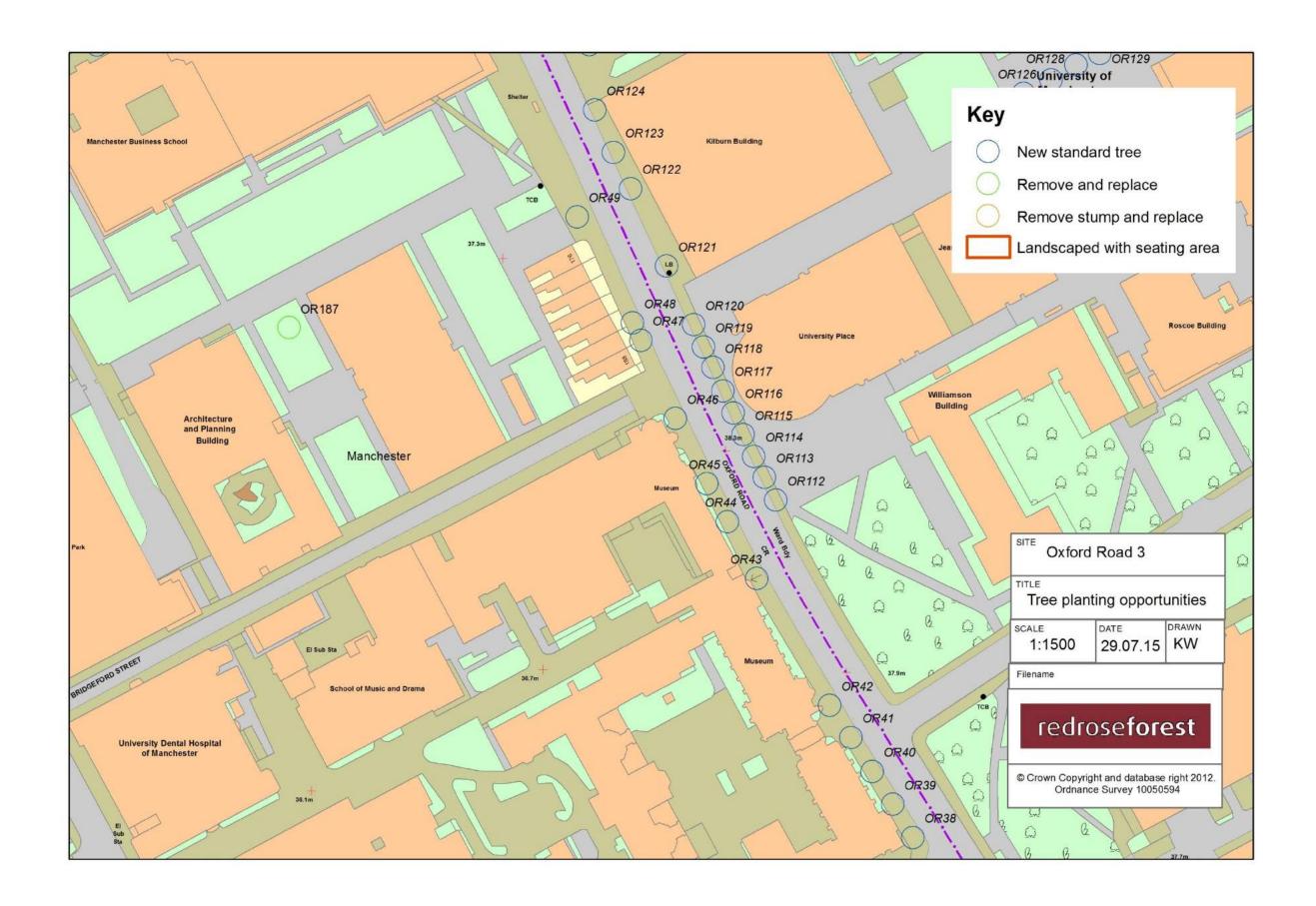
OR151	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR152	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR153	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR154	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR155	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR156	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR157	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR158	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR159	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR160	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR161	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR162	Upper Brook Street, grass verge adjacent to Materials Science Building and MECD development	Soft	University	Large	Yes	1250	Fastigiate species required due to proximity to main road
OR163	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR164	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR165	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR166	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road

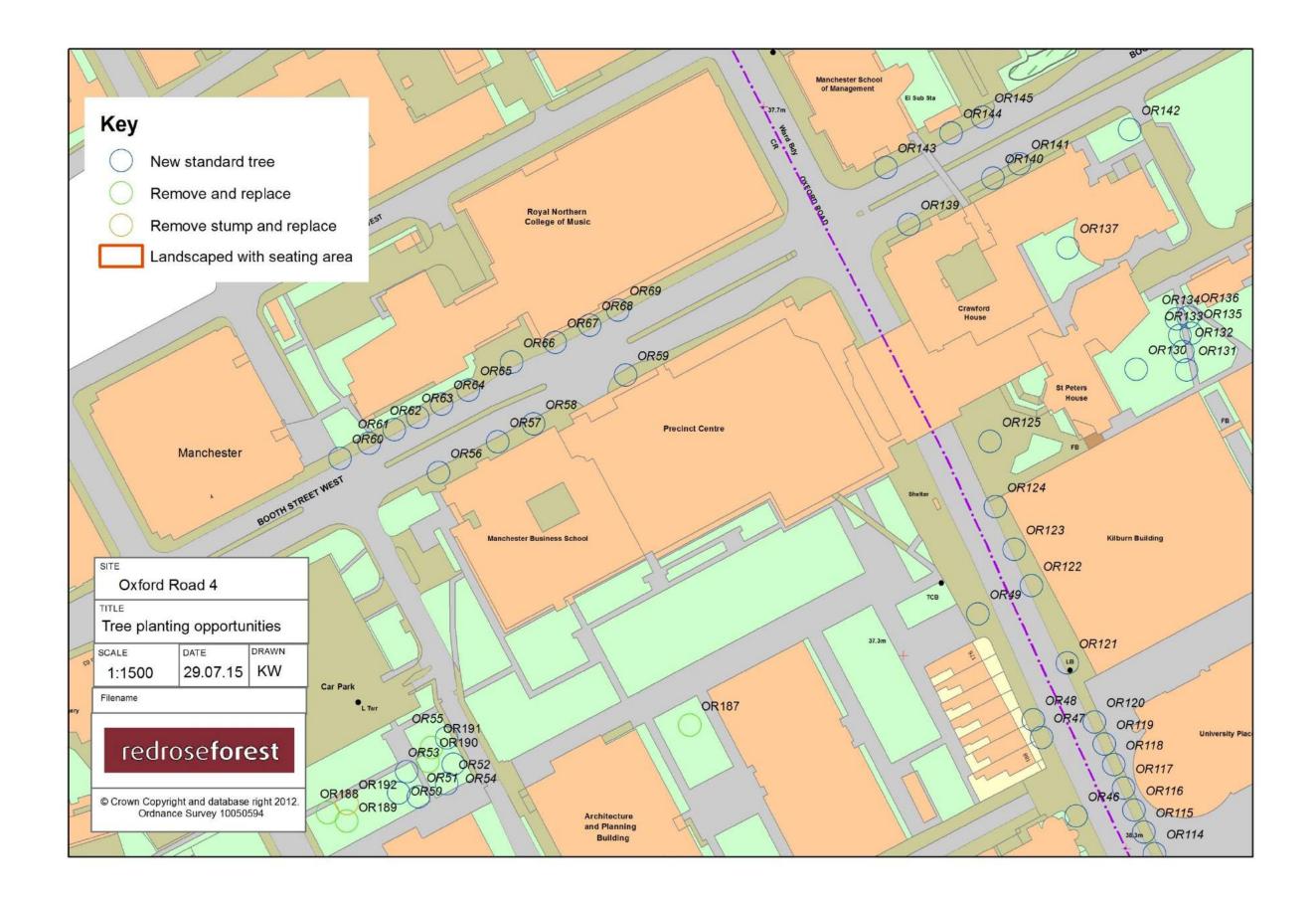
OR167	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR168	Oxford Road, outside of Central Manchester University Hospital	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR169	Oxford Road, outside of multi-storey car park and opposite side of the road to Grove House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR170	Oxford Road, outside of multi-storey car park and opposite side of the road to Grove House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR171	Oxford Road, outside of multi-storey car park and opposite side of the road to Grove House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR172	Oxford Road, outside of multi-storey car park and opposite side of the road to Grove House	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR173	Entrance to Innovation Centre, off Grafton Street	Hard	University	Small	Yes	3000	Suggestion: top worked tree i.e. Robinia pseudoacacia Umbraculifera
OR174	Entrance to Innovation Centre, off Grafton Street	Hard	University	Small	Yes	3000	Suggestion: top worked tree i.e. Robinia pseudoacacia Umbraculifera
OR175	Oxford Road, outside of Fir House, opposite Whitworth Park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR176	Oxford Road, outside of Fir House, opposite Whitworth Park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR177	Oxford Road, outside of Fir House, opposite Whitworth Park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR178	Oxford Road, outside of Fir House, opposite Whitworth Park	Hard	Manchester City Council	Medium	Yes	3250	Fastigiate species required due to proximity to main road
OR179	Between Mansfield Cooper Building and Stephen Joseph Studio	Hard	Manchester City Council	Small	Yes	3000	Remove and replace existing tree. Replace with same species as originally planted
OR180	Grassed area adjacent to, and north of, Stephen Joseph Studio	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted
OR181	Grassed area adjacent to, and north of, Stephen Joseph Studio	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted
OR182	Grassed area adjacent to, and north of, Stephen Joseph Studio	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted
OR183	Grassed area adjacent to, and north of, Stephen Joseph Studio	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted
OR184	Lime Grove	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted

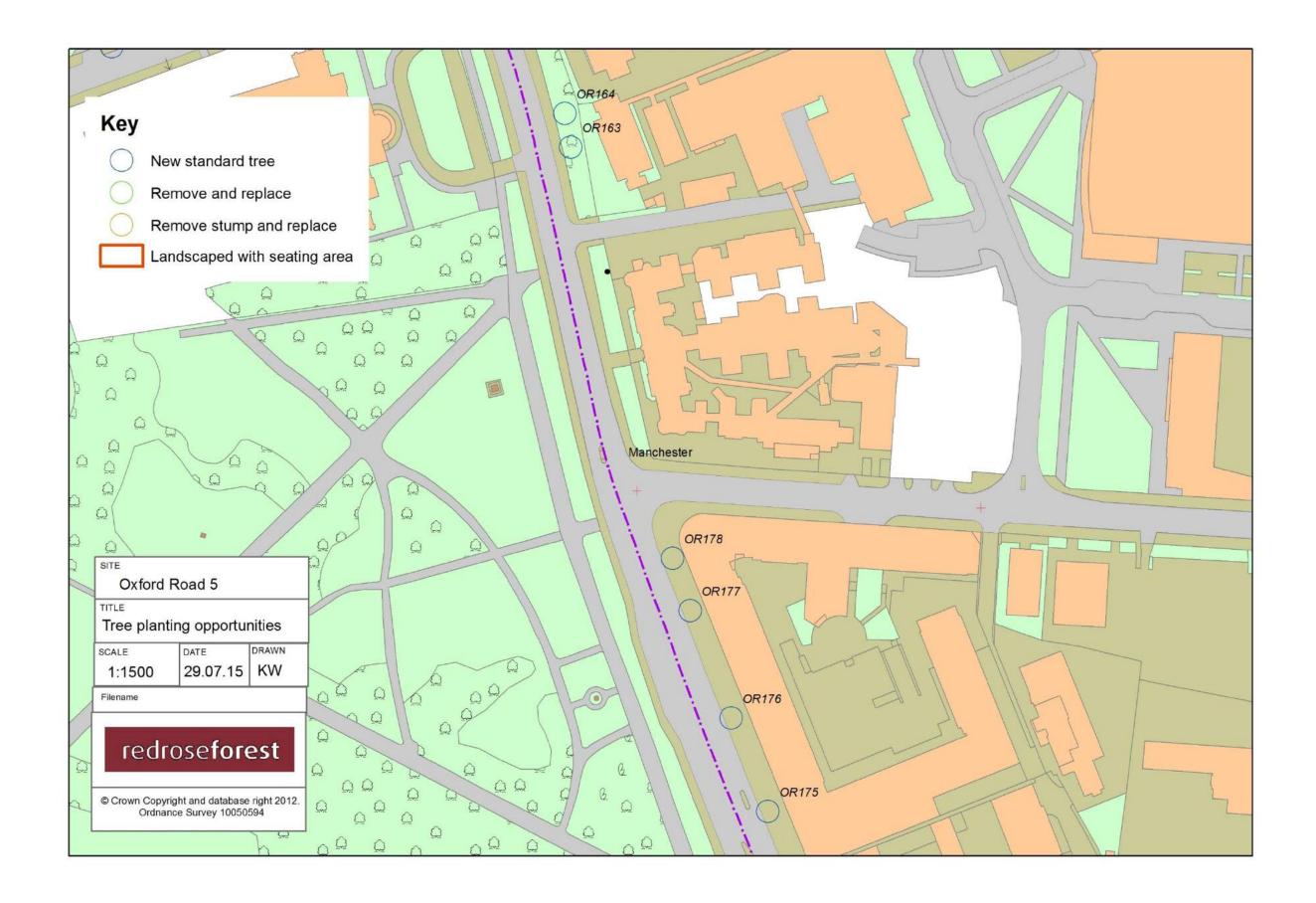
			Γ			7	Remove and replace existing tree.
OR185	Lime Grove	Soft	University	Small	Yes	750	Replace with same species as originally planted
OR186	Lime Grove	Soft	University	Small	Yes	750	Remove and replace existing tree. Replace with same species as originally planted
OR187	Grassed area adjacent to, and east of, Architecture and Planning Building	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted - Catalpa bignonioides (Indian Bean Tree)
OR188	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted
OR189	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted
OR190	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted
OR191	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted
OR192	Grassed area between Multistorey car park and new hotel at the junction of Higher Cambridge St and Booth St West	Soft	University	Medium	Yes	1000	Remove and replace existing tree. Replace with same species as originally planted
OR193	Oxford Road, between Grove House and 322	Soft	Manchester City Council	NA	NA	NA	Dead space outside of a row of shops with high pedestrian footfall. Looks unsightly. Would lend itself well to seats and flower garden

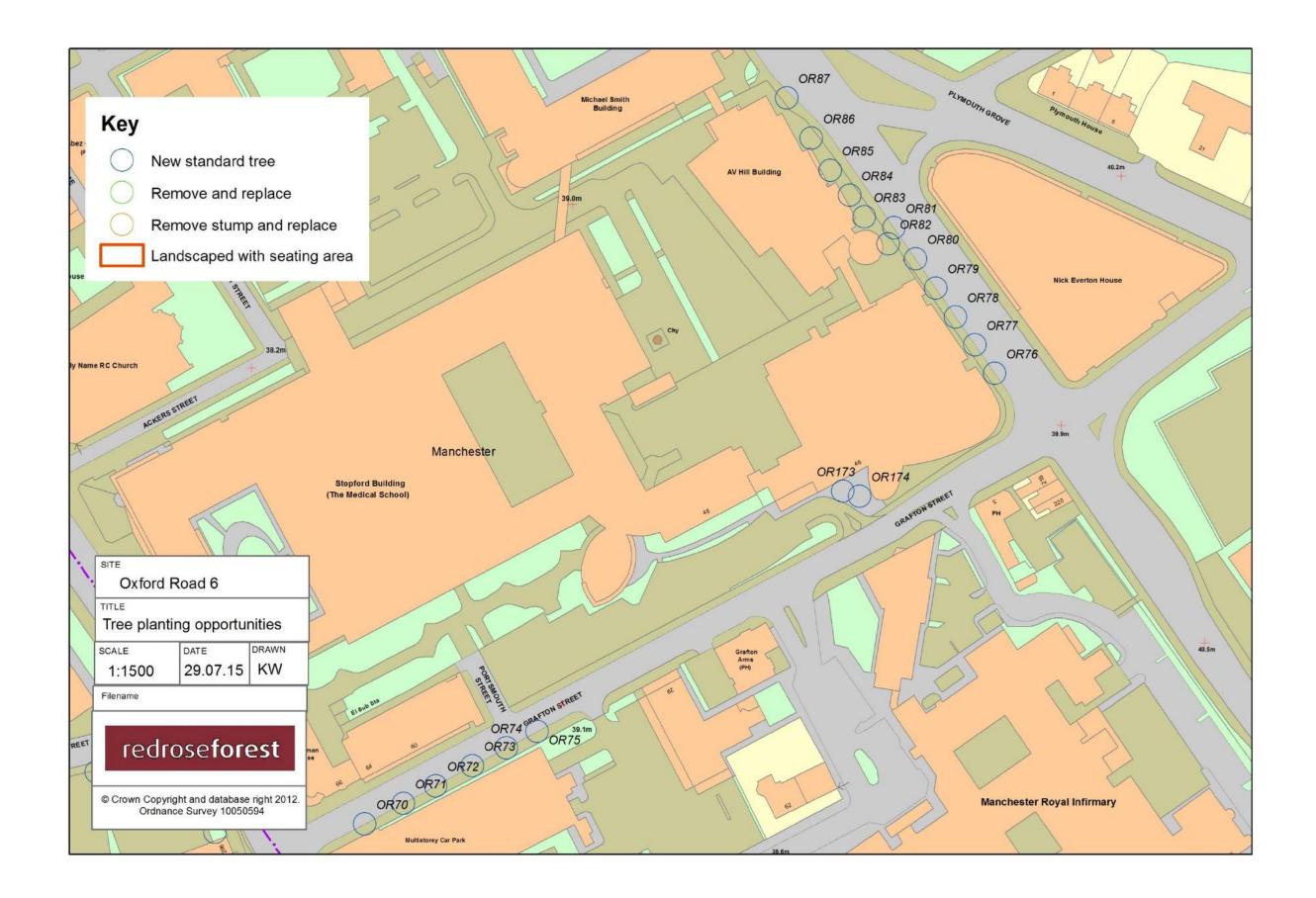


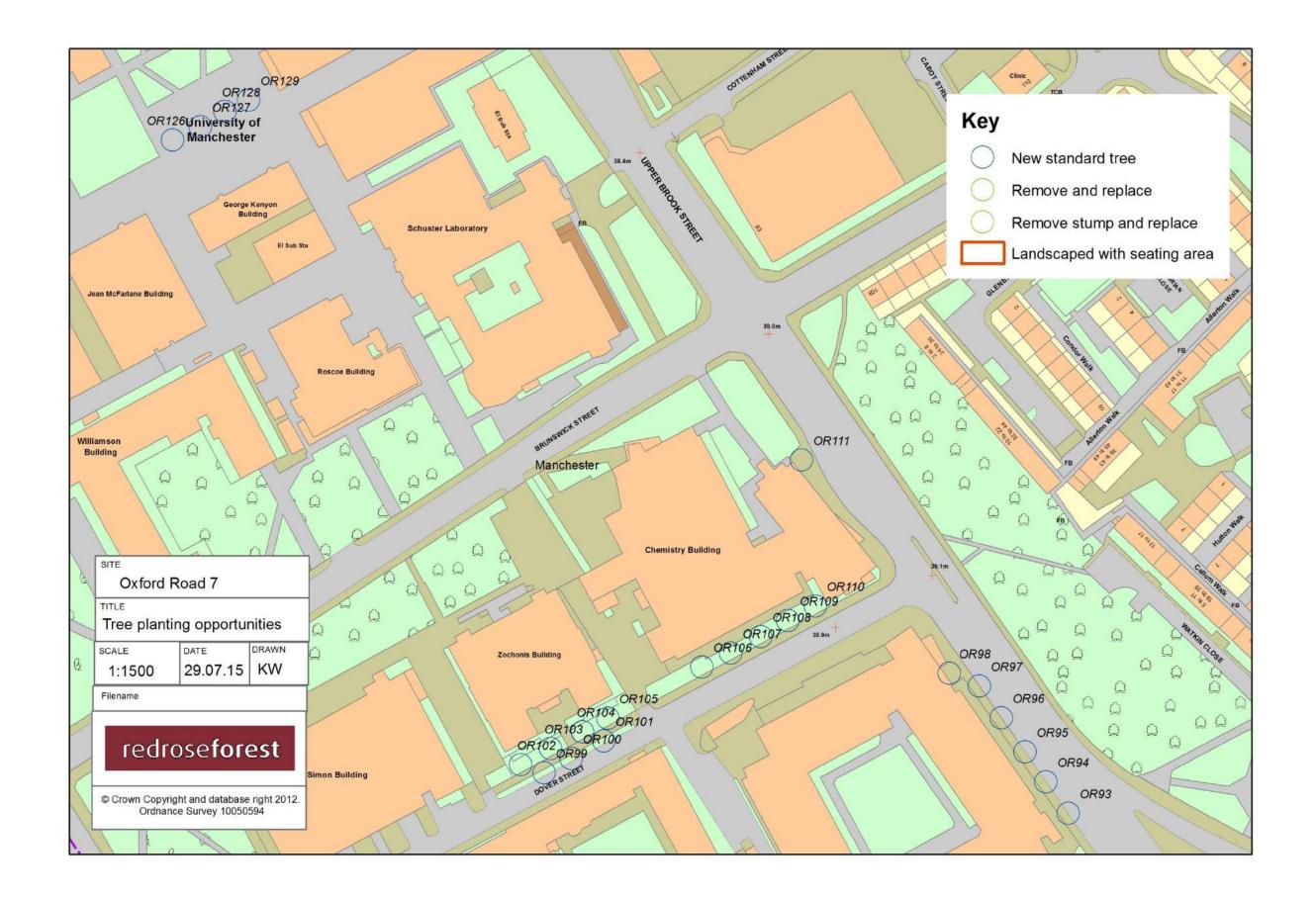


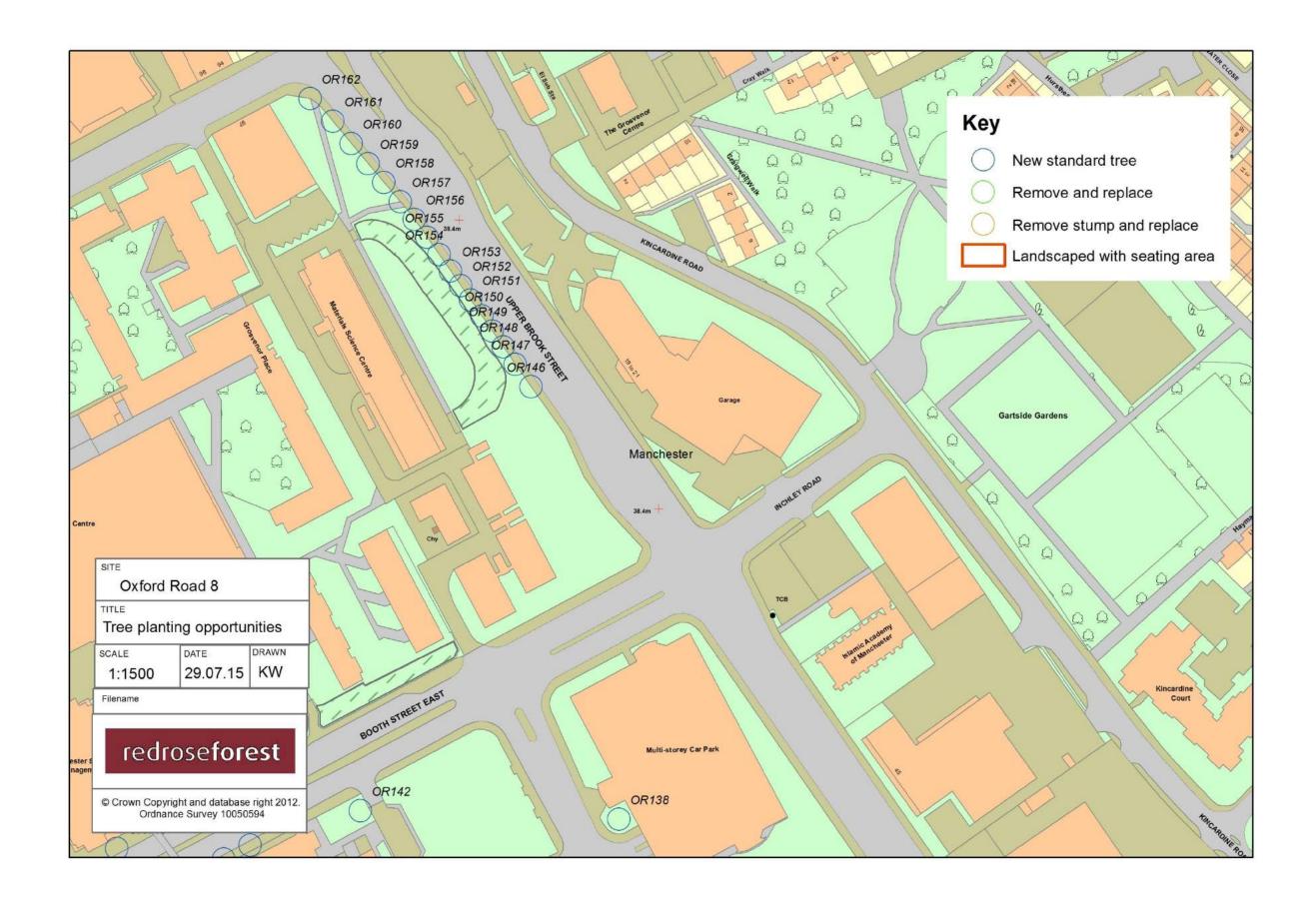










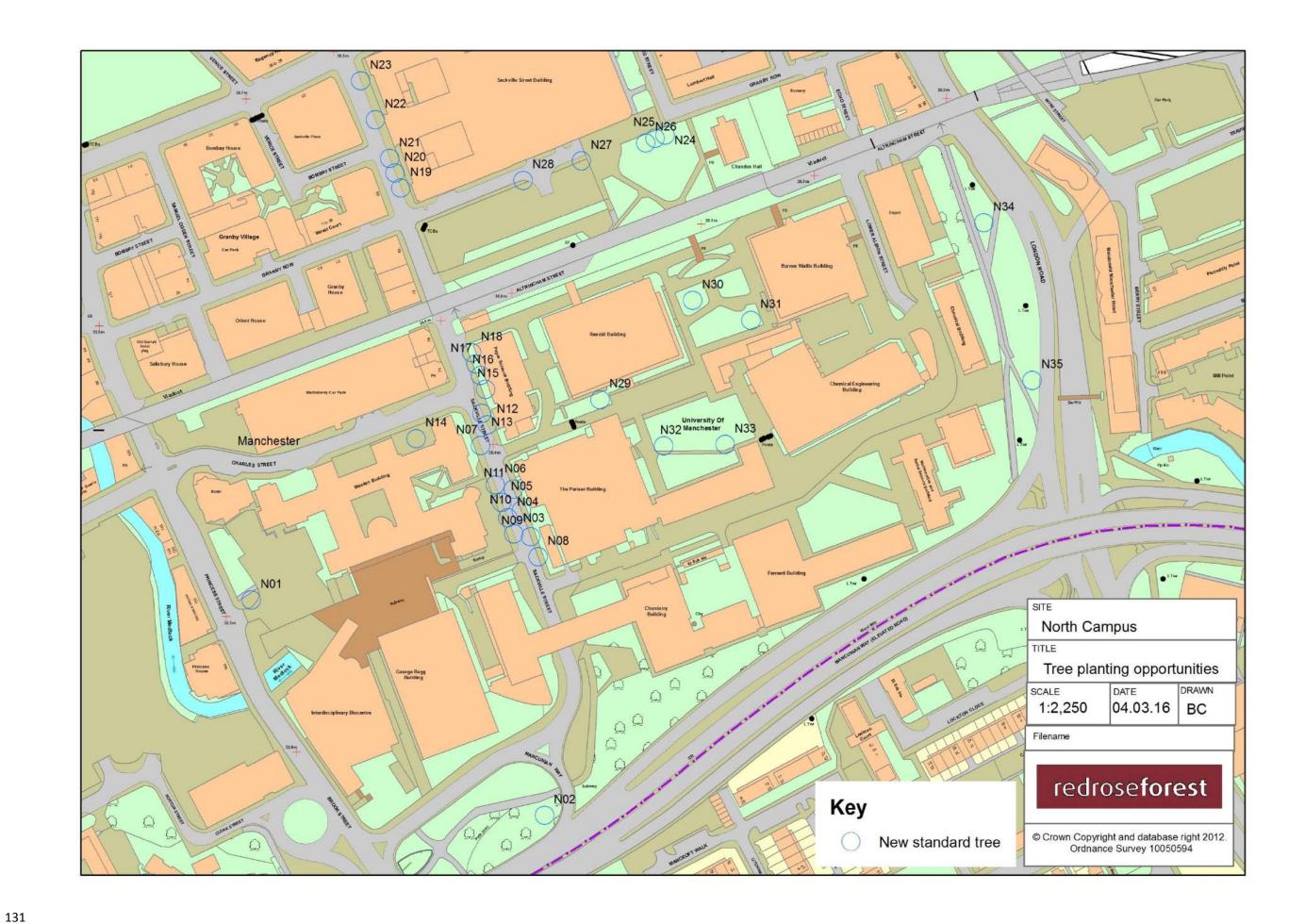


## Appendix 5 - Spreadsheet & Planting Maps - North Campus

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip	Tree guard required Yes/No	Approx. cost	Comments
N1	Princess Street, opposite Montana House	Soft	University	Large	Yes	1250	Open space will allow for large tree at the entrance to a bleak looking car park
N2	Verge adjacent to the Mancunian Way slip road, leading to Sackville Street	Soft	Manchester City Council	Large	Yes	1250	
N3	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N4	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N5	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N6	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N7	Sackville Street, outside of Weston Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement approx. 3m wide with buildings set back a distance from the road. Enough room for a tree of medium size
N8	Sackville Street, outside of Pariser Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N9	Sackville Street, outside of Pariser Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N10	Sackville Street, outside of Pariser Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N11	Sackville Street, outside of Pariser Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N12	Sackville Street, outside of Paper Science Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N13	Sackville Street, outside of Paper Science Building	Hard	Manchester City Council	Small	Yes	3000	Pavement approx. 3m wide with buildings closer to the road. Smaller tree required than opposite side of the road
N14	Charles Street, outside of Weston Building	Soft	University	Medium	Yes	1,000	
N15	Sackville Street, outside of Paper Science Building	Soft	University	Small	Yes	750	Ornamental species suggested

N16	Sackville Street, outside of Paper Science Building	Soft	University Small		Yes	750	Ornamental species suggested
N17	Sackville Street, outside of Paper Science Building	Soft	University	Small	Yes	750	Ornamental species suggested
N18	Sackville Street, outside of Paper Science Building	Soft	University	Small	Yes	750	Ornamental species suggested
N19	Sackville Street, outside of Sackville Street Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement over 4m wide, allowing for medium sized trees. Trees 21, 22 and 23 could be planted within a trench as opposed to individual tree pits.
N20	Sackville Street, outside of Sackville Street Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement over 4m wide, allowing for medium sized trees. Trees 21, 22 and 23 could be planted within a trench as opposed to individual tree pits.
N21	Sackville Street, outside of Sackville Street Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement over 4m wide, allowing for medium sized trees. Trees 21, 22 and 23 could be planted within a trench as opposed to individual tree pits.
N22	Sackville Street, outside of Sackville Street Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement over 4m wide, allowing for medium sized trees.
N23	Sackville Street, outside of Sackville Street Building	Hard	Manchester City Council	Medium	Yes	3250	Pavement over 4m wide, allowing for medium sized trees.
N24	Granby Row Gardens	Soft	University	Medium	Yes	1000	This tree would fill a gap between existing Ornamental Pears
N25	Granby Row Gardens	Soft	University	Medium	Yes	1000	This tree would fill a gap between existing Ornamental Pears
N26	Granby Row Gardens	Soft	University	Medium	Yes	1000	This tree would fill a gap between existing Ornamental Pears
N27	Granby Row, opposite Sackville Street Building	Soft	University	Medium	Yes	1000	Whitebeam recommended to ensure consistency with existing trees in the area
N28	Granby Row, opposite Sackville Street Building	Soft	University	Small	Yes	750	A tree here would provide shade to an existing seating area
N29	Grass verge to the south of, and adjacent to, Renold Building	Soft	University	Medium	No	1000	
N30	Gardens between Renold Building and Barnes Wallis Building	Soft	University	Medium	No	1000	A tree here would provide shade to an existing seating area. Betula pendula Pupurea recommended
N31	Gardens between Renold Building and Barnes Wallis Building	Soft	University	Medium	No	1000	
N32	Gardens between The Pariser Building and Chemical Engineering Building	Soft	University	Medium	No	1000	Birch recommended to ensure consistency with existing trees in the area (Betula albosinensis Fascination)

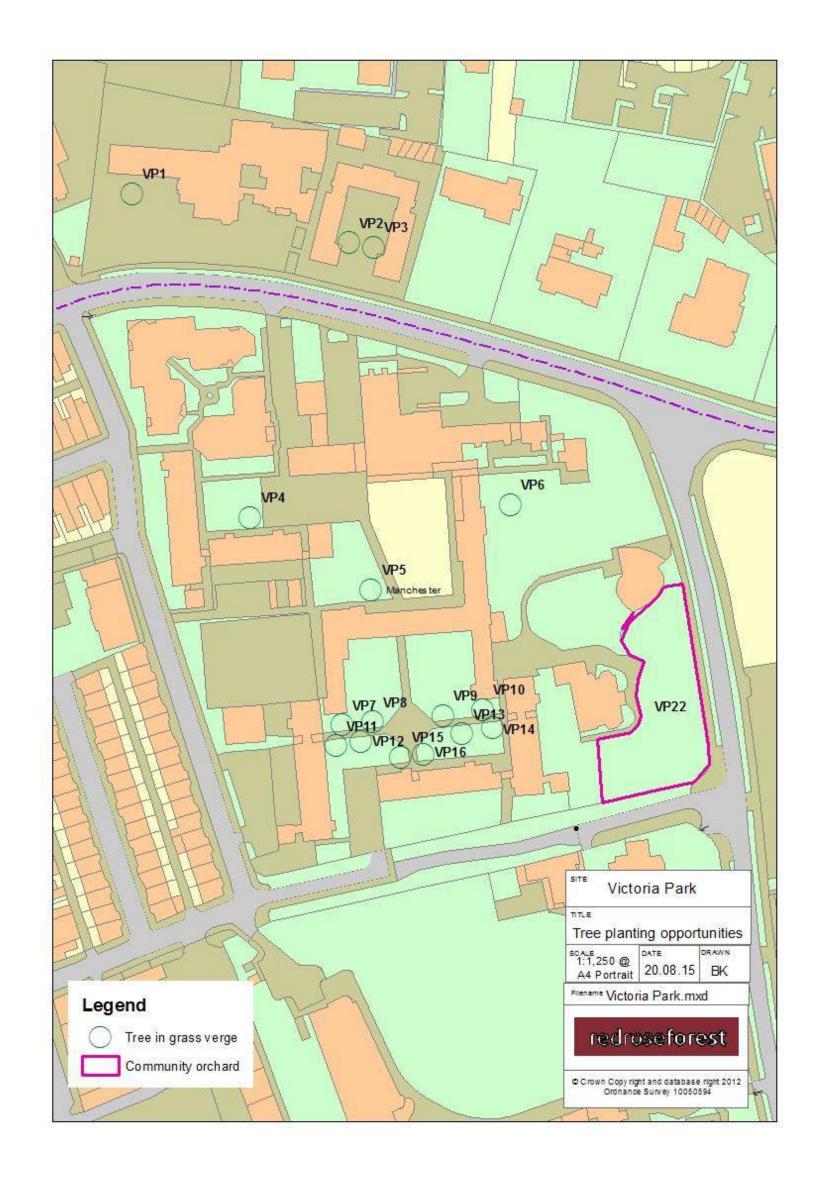
N33	Gardens between The Pariser Building and Chemical Engineering Building	Soft	University	Large	No	1250	Plane (Platanus hispanica - Acerifolia) recommended to ensure consistency with existing trees in the area
N34	Grass verge on London Road, opposite Macdonald Manchester Hotel	Soft	Manchester City Council	Medium	Yes	1000	Tree would need to be planted away from the road to ensure the canopy did not spread across it
N35	Grass verge on London Road, opposite Macdonald Manchester Hotel	Soft	Manchester City Council	Medium	Yes	1000	Fastigiate Oak (Quercus robur Fastigiata) recommended to ensure consistency with existing trees on the grass verge

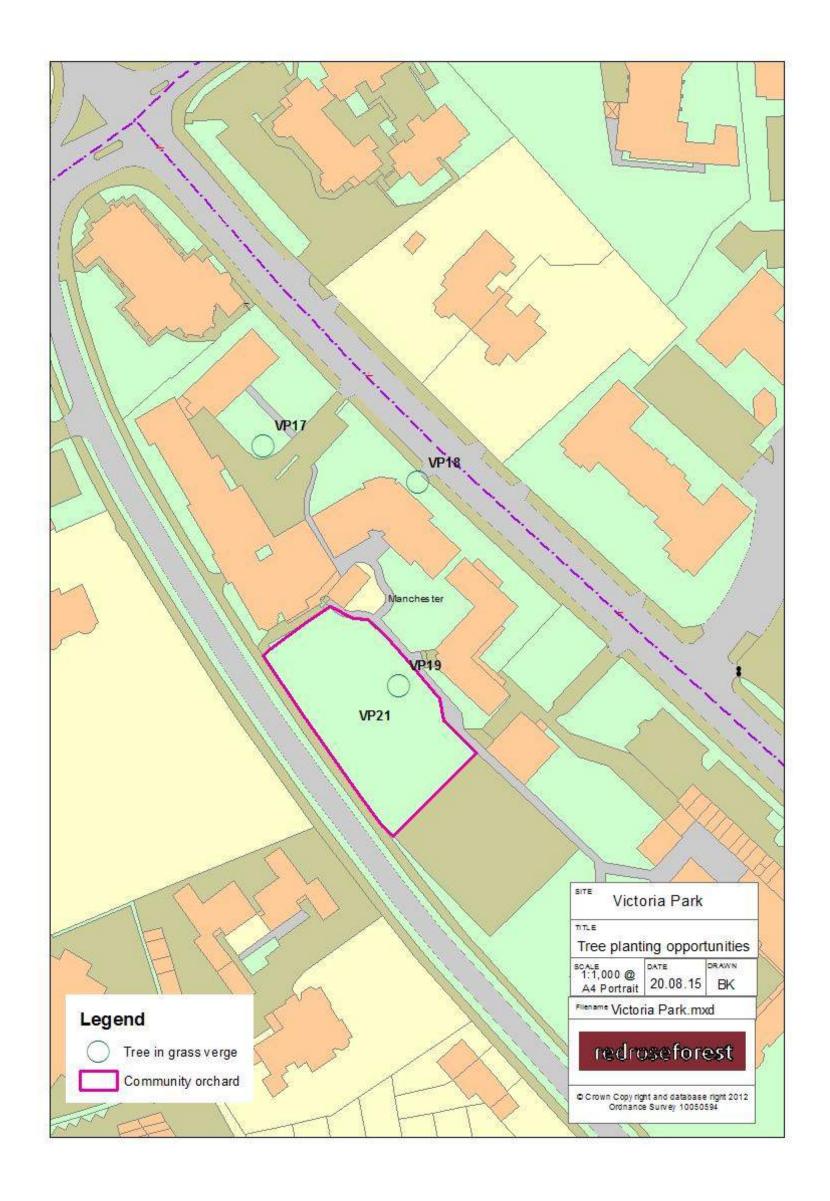


## Appendix 6 - Spreadsheet & Planting Maps - Victoria Park

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip/fruit trees	Tree guard required Yes/No	Approx. cost £	Comments
VP1	Grassed area, west of the car park outside of St Gabriel's Hall	Soft	University	Small	Yes	750	Fastigiate variety suggested to ensure natural light still access the windows of St Gabriel's Hall
VP2	Within courtyard area at St Gabriel's Hall	Soft	University	Small	Yes	750	Suggested species: Sorbus aucuparia Cardinal Royal suggested
VP3	Within courtyard area at St Gabriel's Hall	Soft	University	Small	Yes	750	Suggested species: Sorbus aucuparia Cardinal Royal suggested
VP4	Grassed area adjacent to the car park outside of the Wardens Lodge at Hulme Hall	Soft	University	Small	Yes	750	Ornamental variety
VP5	Grassed area immediately south of Wardens Lodge	Soft	University	Medium	Yes	1000	Ornamental variety
VP6	Grassed area between wardens lodge and the Chapel	Soft	University	Small	Yes	750	Shade tolerant species required due to shade provided by large trees in the area
VP7	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP8	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP9	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP10	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP11	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP12	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP13	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP14	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP15	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP16	Courtyard at the centre of Hulme Hall	Soft	University	Medium	Yes	1000	Fastigiate species required
VP17	Verge adjacent to car park in Dalton Ellis Hall, south of St Chrysostom's Church	Soft	University	Small	Yes	750	
VP18	Verge adjacent to the pavement on Anson Road	Soft	University	Medium	Yes	1000	Medium sized tree to fill a gap in an existing line of mature trees

VP19	Large grassed area at the centre of Dalton Ellis Hall - adjacent to Conyngham Road & the sports courts	Soft	University	Medium	Yes	1000	Shade tree
VP20	Grassed area in the south east corner of Hulme Hall	Soft	University	Fruit trees	Yes	1000	5 fruit trees, protective cages required. M27 Root stock recommended
VP21	Large grassed area at the centre of Dalton Ellis Hall - adjacent to Conyngham Road & the sports courts	Soft	University	Fruit trees	Yes	1600	8 fruit trees, protective cages required. MM106 Root stock recommended





# Appendix 7 - Spreadsheet & Planting Maps – Wythenshawe Playing Fields

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip/fruit tree	Tree guard required Yes/No	Approx. cost £	Comments
WF1	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF2	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF3	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF4	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF5	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF6	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF7	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF8	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF9	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF10	Immediately north of the pedestrian bridge that crosses the motorway and accesses the south side of the site	Soft	University	Large	Yes	1,250	This tree would be adding to an existing line of mature Poplar trees.
WF11	Adjacent to bank of wild flowers south of Poplar trees	Soft	University	Whip	No	250	Creating a woodland buffer here would provide a range of biodiversity benefits as well as mitigating noise and sound pollution coming from the motorway.  Scope for 300 whips



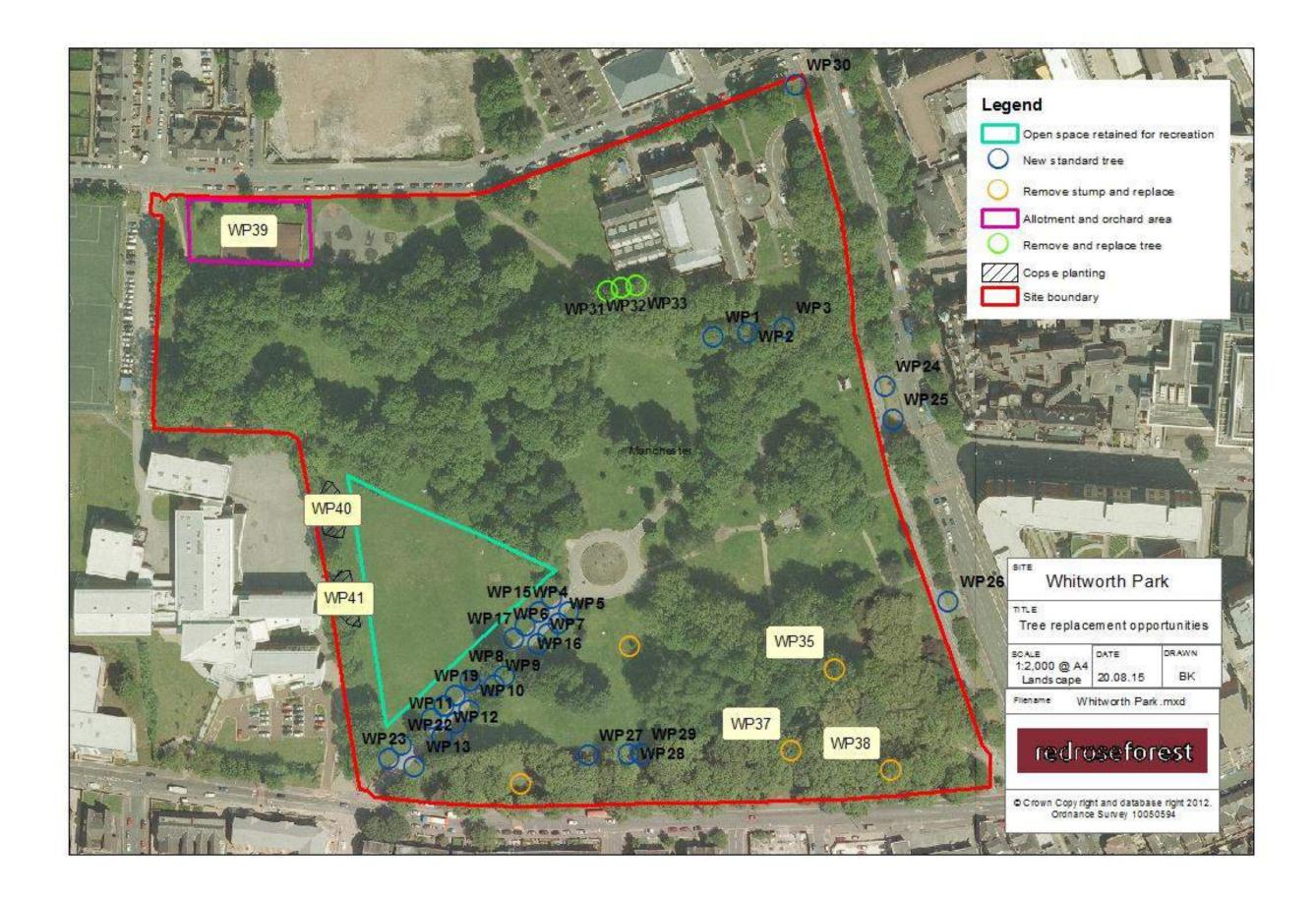
## Appendix 8 - Spreadsheet & Planting Maps - Whitworth Park

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip/fruit tree	Tree guard required Yes/No	Approx. cost	Comments
WP1	South of gallery in the north east corner of the park	Soft	Manchester City Council	Small	Yes	750	Line of 3 trees. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP2	South of gallery in the north east corner of the park	Soft	Manchester City Council	Small	Yes	750	Line of 3 trees. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP3	South of gallery in the north east corner of the park	Soft	Manchester City Council	Small	Yes	750	Line of 3 trees. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP4	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP5	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP6	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP7	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP8	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP9	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP10	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease

WP11	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP12	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP13	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP14	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP15	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP16	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP17	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP18	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP19	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP20	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP21	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease

WP22	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP23	Adjacent to the formal path in the south west corner of the park	Soft	Manchester City Council	Large	Yes	1,250	Tree would form part of an avenue. 10 trees either side. Successional planting with a view to replacing tree cover when mature trees are felled due to age and/or disease
WP24	Grass verge on Oxford Road, running parallel to the park	Soft	Manchester City Council	Small	Yes	750	Infilling a gap between existing cherry trees
WP25	Grass verge on Oxford Road, running parallel to the park	Soft	Manchester City Council	Small	Yes	750	Infilling a gap between existing cherry trees
WP26	Grass verge on Oxford Road, running parallel to the park	Soft	Manchester City Council	Small	Yes	750	Infilling a gap between existing cherry trees
WP27	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP28	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP29	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP30	North East corner of the art gallery, close to the junction of Denmark Road and Oxford Road	Soft	Manchester City Council	Large	No	1,250	Landmark tree that would be seen from Oxford Road
WP31	Immediately south of Gallery café	Soft	Manchester City Council	Small	Yes	750	Advice from Art Gallery staff suggests a small tree is required due to proximity to the café. The café is marketed as 'The Café in the Trees' and staff have requested canopies that are level with the café users view of the park.
WP32	Immediately south/adjacent to Gallery café	Soft	Manchester City Council	Small	Yes	750	Advice from Art Gallery staff suggests a small tree is required due to proximity to the café. The café is marketed as 'The Café in the Trees' and staff have requested canopies that are level with the café users view of the park.

WP33	Immediately south of Gallery café	Soft	Manchester City Council	Small	Yes	750	Advice from Art Gallery staff suggests a small tree is required due to proximity to the café. The café is marketed as 'The Café in the Trees' and staff have requested canopies that are level with the café users view of the park.
WP34	Immediately south of central 'roundabout'	Soft	Manchester City Council	Medium	Yes	1,000	Stand alone tree - ornamental variety recommended.
WP35	Immediately south of the war memorial	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP36	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP37	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP38	Adjacent to path running east to west on south side of park, parallel with Moss Lane East	Soft	Manchester City Council	Medium	Yes	1,000	Infilling a gap in the existing line of Ash trees. Species selection should take into account further removal of Ash due to age and/or disease, and provide the basis for a new avenue along the paths currently lined by them
WP39	North-west corner of the park adjacent to entrance	Soft	Manchester City Council	Fruit tree	Yes	1600	An allotment area is currently being developed by the Art Gallery. Fruit trees here would add value to the food growing site. MM106 root stock recommended. Scope for approx 8 trees
WP40	Western boundary of the park adjacent to Manchester Academy school	Soft	Manchester City Council	Whip	No	300	Some scrubby areas with self seeded trees already occupy this area of the site. Whip planting provides opportunities for the local community/students/businesses to get involved in the practical delivery of the project. Scope for 50 whips
WP41	Western boundary of the park adjacent to Manchester Academy school	Soft	Manchester City Council	Whip	No	300	Some scrubby areas with self seeded trees already occupy this area of the site. Whip planting provides opportunities for the local community/students/businesses to get involved in the practical delivery of the project. Scope for 50 whips



## Appendix 9 – Spreadsheet & Planting Maps – Brunswick PFI

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip/fruit tree	Tree guard required Yes/No	Approx. cost	Comments
B1	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B2	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B3	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B4	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B5	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B6	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
В7	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B8	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B9	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.

B10	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B11	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B12	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B13	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B14	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B15	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B16	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B17	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B18	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Small	Yes	750	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B19	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B20	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.

B21	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B22	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B23	Between Mancroft Walk & Mancunian Way	Soft	Manchester City Council	Large	Yes	1250	Tree would provide a buffer between residential properties and the Mancunian Way. Evergreen trees may be more beneficial than deciduous.
B24	Corner of Mancroft Walk & Penfield Close	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B25	Corner of Mancroft Walk & Penfield Close	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B26	North of Lamport Court	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B27	North of Lamport Court	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B28	North of Lamport Court	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B29	Corner of Lamport Close & Grosvenor Street	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B30	Corner of Lamport Close & Grosvenor Street	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species
B31	Corner of Kincardine Road and Hanworth Close	Soft	Manchester City Council	Medium	Yes	1000	
B32	Corner of Kincardine Road and Hanworth Close	Soft	Manchester City Council	Medium	Yes	1000	
B33	Corner of Kincardine Road and Hanworth Close	Soft	Manchester City Council	Medium	Yes	1000	
B34	Corner of Kincardine Road and Hanworth Close	Soft	Manchester City Council	Medium	Yes	1000	
B35	Corner of Kincardine Road and Hanworth Close (within the park)	Soft	Manchester City Council	Large	Yes	1250	Tree on the southwest corner of the re- designed park (Gartside Gardens)
B36	Corner of Kincardine Road and Hanworth Close (within the park)	Soft	Manchester City Council	Large	Yes	1250	Tree on the southwest corner of the re- designed park (Gartside Gardens)
B37	Corner of Kincardine Road and Hanworth Close (within the park)	Soft	Manchester City Council	Large	Yes	1250	Tree on the southwest corner of the re- designed park (Gartside Gardens)
B38	Corner of Kincardine Road and Hanworth Close (within the park)	Soft	Manchester City Council	Large	Yes	1250	Tree on the southwest corner of the redesigned park (Gartside Gardens)
B39	Corner of Kincardine Road and Hanworth Close (within the park)	Soft	Manchester City Council	Large	Yes	1250	Tree on the southwest corner of the re- designed park (Gartside Gardens)

B40	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Tree on the northwest corner of the redesigned park (Gartside Gardens)
B41	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Tree on the northwest corner of the redesigned park (Gartside Gardens)
B42	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Tree on the northwest corner of the redesigned park (Gartside Gardens)
B43	North-west corner of Gartside Gardens	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at northwest entrance of the park (Gartside Gardens
B44	North-west corner of Gartside Gardens	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at northwest entrance of the park (Gartside Gardens
B45	North-west corner of Gartside Gardens	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at northwest entrance of the park (Gartside Gardens
B46	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the northwest corner of the park (Gartside Gardens) to Kincardine Road
B47	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the northwest corner of the park (Gartside Gardens) to Kincardine Road
B48	North-west corner of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the northwest corner of the park (Gartside Gardens) to Kincardine Road
B49	At the entrance to Gartside Gardens via Kincardine Road	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at the junction of two paths within the park at the Kincardine Road entrance
B50	At the entrance to Gartside Gardens via Kincardine Road	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at the junction of two paths within the park at the Kincardine Road entrance
B51	At the entrance to Gartside Gardens via Kincardine Road	Soft	Manchester City Council	Small	Yes	750	Small ornamental species recommended at the junction of two paths within the park at the Kincardine Road entrance
B52	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B53	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)

B54	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B55	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B56	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B57	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B58	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B59	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B60	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B61	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B62	Gartside Gardens - Adjacent to path running from Kincardine Rd to north-est corner of the site	Soft	Manchester City Council	Large	Yes	1250	Large growing species to line the main path from the Kincardine Rd entrance to the northeast corner of the park (Gartside Gardens)
B63	Gartside Gardens - close to newly constructed road to the north of the site	Soft	Manchester City Council	Large	Yes	1250	Tree will form part of a cluster of 3 trees within Gartside Gardens
B64	Gartside Gardens - close to newly constructed road to the north of the site	Soft	Manchester City Council	Large	Yes	1250	Tree will form part of a cluster of 3 trees within Gartside Gardens
B65	Gartside Gardens - close to newly constructed road to the north of the site	Soft	Manchester City Council	Large	Yes	1250	Tree will form part of a cluster of 3 trees within Gartside Gardens
B66	Grass verge on Deanwater Close	Soft	Manchester City Council	Large	Yes	1250	Relatively large grass verge, away from residential properties will allow for medium-large growing trees

B67	Grass verge on Deanwater Close	Soft	Manchester City Council	Large	Yes	1250	Relatively large grass verge, away from residential properties will allow for medium-large growing trees
B68	Grass verge on Deanwater Close	Soft	Manchester City Council	Large	Yes	1250	Relatively large grass verge, away from residential properties will allow for medium-large growing trees
B69	Grass verge on Deanwater Close	Soft	Manchester City Council	Medium	Yes	1000	Relatively large grass verge, away from residential properties will allow for medium-large growing trees
B70	Grass verge on Deanwater Close	Soft	Manchester City Council	Medium	Yes	1000	Relatively large grass verge, away from residential properties will allow for medium-large growing trees
B71	Grass verge between Deanwater Close & Skerry Close	Soft	Manchester City Council	Medium	Yes	1000	Grass verge close to houses but far enough to allow room for medium sized tree
B72	Grass verge between Deanwater Close & Skerry Close	Soft	Manchester City Council	Medium	Yes	1000	Grass verge close to houses but far enough to allow room for medium sized tree
B73	Grass verge at junction of Skerry Close and the newly created (unnamed) road north of Gartside Gardens	Soft	Manchester City Council	Large	Yes	1250	A landmark tree would be ideal for this prominent location within the estate
B74	Grass verge between Skerry Close & Gartside Gardens	Soft	Manchester City Council	Medium	Yes	1000	Tree 74 and 75 would frame the four, newly built residential properties northeast of Gartside Gardens. Both trees should be of the same species
B75	Grass verge on the corner of Whitekirk Close and the newly created (unnamed) road	Soft	Manchester City Council	Medium	Yes	1000	Tree 74 and 75 would frame the four, newly built residential properties northeast of Gartside Gardens. Both trees should be of the same species
B76	Grass verge on the corner of Whitekirk Close and the newly created (unnamed) road	Soft	Manchester City Council	Large	Yes	1250	A landmark tree would be ideal for this prominent location within the estate
B77	Narrow verge in front of retained properties on Whitekirk Close	Soft	Manchester City Council	Small	Yes	750	Smaller tree due to proximity to houses. Species should be the same as tree 78
B78	Narrow verge in front of retained properties on Whitekirk Close	Soft	Manchester City Council	Small	Yes	750	Smaller tree due to proximity to houses. Species should be the same as tree 77
B79	Grass verge on the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Trees 79, 80, 81, 82, 83 would form part of a cluster
B80	Grass verge on the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Trees 79, 80, 81, 82, 83 would form part of a cluster
B81	Grass verge on the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Trees 79, 80, 81, 82, 83 would form part of a cluster
B82	Grass verge on the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Trees 79, 80, 81, 82, 83 would form part of a cluster

B83	Grass verge on the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Trees 79, 80, 81, 82, 83 would form part of a cluster
B84	Grassed area to the rear of the new properties on Hartfield Close/new (unnamed) road	Soft	Manchester City Council	Small	Yes	750	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B85	Grassed area to the rear of the new properties on Hartfield Close/new (unnamed) road	Soft	Manchester City Council	Small	Yes	750	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B86	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B87	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk  Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B88	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk  Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B89	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B90	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B91	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B92	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk  Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B93	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk  Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B94	Grass verge on the north side of the newly created (unnamed) road, east of Whitekirk  Close	Soft	Manchester City Council	Medium	Yes	1000	Informal cluster planting recommended for trees 86, 87, 88, 89, 90, 91, 92, 93, 94
B95	Wadeson Road, opposite Medlock Primary School	Soft	Manchester City Council	Medium	Yes	1000	These trees would continue a line of existing trees - recommended that newly planted trees are of the same species for consistency
B96	Wadeson Road, opposite Medlock Primary School	Soft	Manchester City Council	Medium	Yes	1000	These trees would continue a line of existing trees - recommended that newly planted trees are of the same species for consistency

B97	Wadeson Road, opposite Medlock Primary School	Soft	Manchester City Council	Medium	Yes	1000	These trees would continue a line of existing trees - recommended that newly planted trees are of the same species for consistency
B98	Wadeson Road, opposite Medlock Primary School	Soft	Manchester City Council	Medium	Yes	1000	These trees would continue a line of existing trees - recommended that newly planted trees are of the same species for consistency
B99	Verge at the end of Tristam Close	Soft	Manchester City Council	Medium	Yes	1000	
B100	Verge at the end of Tristam Close	Soft	Manchester City Council	Medium	Yes	1000	
B101	Verge at the end of Tristam Close	Soft	Manchester City Council	Medium	Yes	1000	
B102	South of Artillery Court, adjacent to 'Extra Care Centre'	Soft	Manchester City Council	Medium	Yes	1000	Trees 102, 103, 104 would be planted at the beginning of a newly installed path from Brunswick St into the estate.  Ornamental variety recommended.
B103	South of Artillery Court, adjacent to 'Extra Care Centre'	Soft	Manchester City Council	Medium	Yes	1000	Trees 102, 103, 104 would be planted at the beginning of a newly installed path from Brunswick St into the estate.  Ornamental variety recommended.
B104	South of Artillery Court, adjacent to 'Extra Care Centre'	Soft	Manchester City Council	Medium	Yes	1000	Trees 102, 103, 104 would be planted at the beginning of a newly installed path from Brunswick St into the estate.  Ornamental variety recommended.
B105	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B106	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B107	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B108	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B109	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B110	Rear entrance to 'extra care centre' off Brunswick Street	Soft	Manchester City Council	Small	Yes	750	Ornamental tree close to entrance of extra care centre
B111	Adjacent to rear entrance of extra care centre	Soft	Manchester City Council	Medium	Yes	1000	
B112	Adjacent to rear entrance of extra care centre	Soft	Manchester City Council	Medium	Yes	1000	
B113	Adjacent to rear entrance of extra care centre	Soft	Manchester City Council	Medium	Yes	1000	

B114	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B115	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B116	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B117	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B118	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B119	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B120	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B121	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B122	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B123	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Small	Yes	750	Ornamental species suggested for this newly landscaped area
B124	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B125	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B126	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B127	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B128	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B129	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B130	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B131	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B132	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B133	Green space to rear of Extra Care Centre and Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	Ornamental species suggested for this newly landscaped area
B134	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	
B135	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	

B136	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	
B137	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	
B138	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	
B139	Grass verge adjacent to Brunswick Parish Church	Soft	Manchester City Council	Medium	Yes	1000	
B140	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B141	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B142	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B143	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B144	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B145	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Large	Yes	1250	Distance from residential properties, and the prominent location along Stockport Road, makes this location ideal for a large, landmark tree
B146	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Medium	Yes	1000	Medium-large tree recommended to provide a buffer between newly constructed properties and the busy traffic on Stockport Rd
B147	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Medium	Yes	1000	Medium-large tree recommended to provide a buffer between newly constructed properties and the busy traffic on Stockport Rd
B148	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Medium	Yes	1000	Medium-large tree recommended to provide a buffer between newly constructed properties and the busy traffic on Stockport Rd

B149	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Medium	Yes	1000	Medium-large tree recommended to provide a buffer between newly constructed properties and the busy traffic on Stockport Rd
B150	Grass verge opposite Carling Apollo on Stockport Rd	Soft	Manchester City Council	Medium	Yes	1000	Medium-large tree recommended to provide a buffer between newly constructed properties and the busy traffic on Stockport Rd
B151	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B152	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B153	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B154	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B155	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B156	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B157	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B158	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B159	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B160	Car parking area north of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	Location may be quite exposed due to fewer buildings and proximity to Stockport Road. Hardy species suggested.
B161	Car parking area south of Beamish Close	Soft	Manchester City Council	Medium	Yes	1000	

B162	Car parking area south of Beamish Close	Soft	Manchester City Council	Small	Yes	750	
B163	Entrance to Jessel Close	Soft	Manchester City Council	Small	Yes	750	Narrow road with residential properties either side, small ornamental species required
B164	Entrance to Jessel Close	Soft	Manchester City Council	Small	Yes	750	Narrow road with residential properties either side, small ornamental species required
B165	Entrance to Jessel Close	Soft	Manchester City Council	Small	Yes	750	Narrow road with residential properties either side, small ornamental species required
B166	Car parking area between Glenbarry Close and Brunswick St	Soft	Manchester City Council	Small	Yes	750	
B167	Car parking area between Glenbarry Close and Brunswick St	Soft	Manchester City Council	Small	Yes	750	
B168	Car parking area south of Cumbrian Close	Soft	Manchester City Council	Small	Yes	750	
B169	Car parking area south of Cumbrian Close	Soft	Manchester City Council	Small	Yes	750	
B170	Rear of properties at junction of Cherryton Walk and Copeman Close	Soft	Manchester City Council	Medium	Yes	1000	Existing trees frame this car park.  Species selected for this location should be consistent with established trees.
B171	Rear of properties at junction of Cherryton Walk and Copeman Close	Soft	Manchester City Council	Medium	Yes	1000	Existing trees frame this car park.  Species selected for this location should be consistent with established trees.
B172	Rear of properties at junction of Cherryton Walk and Copeman Close	Soft	Manchester City Council	Medium	Yes	1000	Existing trees frame this car park.  Species selected for this location should be consistent with established trees.
B173	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B174	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B175	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B176	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B177	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street

B178	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B179	Upper Brook Street opposite Schuster Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B180	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B181	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B182	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B183	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B184	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B185	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B186	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B187	Upper Brook Street opposite Micheal Smith Building	Soft	Manchester City Council	Medium	Yes	1000	Tree would provide a buffer between newly constructed properties and the busy traffic on Upper Brook Street
B188	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B189	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B190	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B191	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B192	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B193	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path
B194	Walkway from Plymouth View to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree would line the western side of the path

B195	Parking area on Cunard Close, south of Oregon Close	Soft	Manchester City Council	Medium	Yes	1000	
B196	Parking area on Cunard Close, south of Oregon Close	Soft	Manchester City Council	Medium	Yes	1000	
B197	Parking area on Cunard Close, south of Oregon Close	Soft	Manchester City Council	Medium	Yes	1000	
B198	Grassed area at junction of Thomson Street and Lauderdale Crescent	Soft	Manchester City Council	Large	Yes	1250	Species selection should be in keeping with established trees in this area
B199	Grassed area at junction of Thomson Street and Lauderdale Crescent	Soft	Manchester City Council	Large	Yes	1250	Species selection should be in keeping with established trees in this area
B200	Grassed area at junction of Thomson Street and Lauderdale Crescent	Soft	Manchester City Council	Large	Yes	1250	Species selection should be in keeping with established trees in this area
B201	Grosvenor Street, close to junction with Wadeson Road	Hard	Manchester City Council	Medium	Yes	3250	Ornamental variety
B202	Grosvenor Street at junction with Penfield Close	Hard	Manchester City Council	Medium	Yes	3250	Ornamental variety
B203	Grosvenor Street at junction with Litcham Close	Hard	Manchester City Council	Medium	Yes	3250	Ornamental variety
B204	Grosvenor Street at junction with Lamport Close	Hard	Manchester City Council	Medium	Yes	3250	Ornamental variety
B205	Entrance of Harehill Close	Hard	Manchester City Council	Medium	Yes	3250	Trees 205, 206, 207 should be of the same species and variety
B206	Entrance of Harehill Close	Hard	Manchester City Council	Medium	Yes	3250	Trees 205, 206, 207 should be of the same species and variety
B207	Entrance of Harehill Close	Hard	Manchester City Council	Medium	Yes	3250	Trees 205, 206, 207 should be of the same species and variety
B208	Blackhill Close	Hard	Manchester City Council	Medium	Yes	3250	
B209	Blackhill Close	Hard	Manchester City Council	Small	Yes	3000	
B210	Car parking area off Hanworth Close, south of Denwater Close	Hard	Manchester City Council	Small	Yes	3000	
B211	Skerry Close, close to junction with Daleford Square	Hard	Manchester City Council	Medium	Yes	3250	
B212	Off Whitekirk Close, on new road (unnamed) created to the west of Rudcroft Close	Hard	Manchester City Council	Small	Yes	3000	
B213	Car parking area off Hartfield Close	Hard	Manchester City Council	Small	Yes	3000	
B214	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B215	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B216	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	

B217	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B218	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B219	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B220	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B221	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B222	Walkway north of Extra Care Centre leading to Brunswick Street	Hard	Manchester City Council	Medium	Yes	3250	
B223	Hartfield Close, south of newly landscaped area to rear of church	Hard	Manchester City Council	Medium	Yes	3250	Large front gardens would provide enough space between properties and the tree locations to allow for medium sized trees
B224	Hartfield Close, south of newly landscaped area to rear of church	Hard	Manchester City Council	Medium	Yes	3250	Large front gardens would provide enough space between properties and the tree locations to allow for medium sized trees
B225	Hartfield Close, south of newly landscaped area to rear of church	Hard	Manchester City Council	Medium	Yes	3250	Large front gardens would provide enough space between properties and the tree locations to allow for medium sized trees
B226	Sefton Close	Hard	Manchester City Council	Small	Yes	3000	
B227	Polygon Street	Hard	Manchester City Council	Medium	Yes	3250	Location close to large building, planting semi mature trees here will ensure they have a big impact and will not look insignificant in relation to the adjacent building
B228	Polygon Street	Hard	Manchester City Council	Medium	Yes	3250	Location close to large building, planting semi mature trees here will ensure they have a big impact and will not look insignificant in relation to the adjacent building
B229	Polygon Street	Hard	Manchester City Council	Medium	Yes	3250	Location close to large building, planting semi mature trees here will ensure they have a big impact and will not look insignificant in relation to the adjacent building
B230	Polygon Street	Hard	Manchester City Council	Medium	Yes	3250	Location close to large building, planting semi mature trees here will ensure they have a big impact and will not look insignificant in relation to the adjacent building

B231	Beamish Close	Hard	Manchester City Council	Medium	Yes	3250	
B232	Jessel Close	Hard	Manchester City Council	Small	Yes	3000	
B233	Jessel Close	Hard	Manchester City Council	Small	Yes	3000	
B234	Glenbarry Close	Hard	Manchester City Council	Medium	Yes	3250	
B235	Glenbarry Close	Hard	Manchester City Council	Medium	Yes	3250	
B236	Glenbarry Close	Hard	Manchester City Council	Medium	Yes	3250	
B237	Glenbarry Close	Hard	Manchester City Council	Small	Yes	3000	
B238	Grassed area off Milnrow Close	Soft	Manchester City Council	Fruit trees	Yes	1000	Room for 5 fruit trees. Protective cages required. MM106 root stock recommended
B239	Green space on Rudcroft Close	Soft	Manchester City Council	Fruit trees	Yes	4000	Room for 20 fruit trees. Protective cages required. MM106 root stock recommended
B240	Green space off Beamish Close	Soft	Manchester City Council	Fruit trees	Yes	1000	Room for 5 fruit trees. Protective cages required. MM106 root stock recommended



SITE MASTERPLAN M4976 LP 000 REV A

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## Appendix 10 – Spreadsheet & Planting Maps – Brunswick (Non PFI)

Reference Number	Location	Soft or Hard Landscaped area	Site ownership	Suggested tree species - small/medium/large/whip/fruit tree	Tree guard required Yes/No	Approx.	Comments
B1	Kincardine Road - Grass verge south of Kincardine Court	Soft	Unsure	Medium	Yes	1000	Fastigiate species required
B2	Kincardine Road - Grass verge south of Kincardine Court	Soft	Unsure	Medium	Yes	1000	Fastigiate species required
В3	Kincardine Road - Grass verge south of Kincardine Court	Soft	Unsure	Medium	Yes	1000	Fastigiate species required
B4	Kincardine Road - to the rear of properties 11 & 13 Sefton Close	Soft	Manchester City Council	Medium	Yes	1000	
B5	Kincardine Road - to the rear of properties 11 & 13 Sefton Close	Soft	Manchester City Council	Medium	Yes	1000	
В6	Kincardine Road - verge at the end of Frances Street	Soft	Manchester City Council	Medium	Yes	1000	
В7	Kincardine Road - verge at the end of Frances Street	Soft	Manchester City Council	Medium	Yes	1000	
B8	Kincardine Road - verge at the end of Frances Street	Soft	Manchester City Council	Medium	Yes	1000	
В9	Kincardine Road - verge at the end of Frances Street	Soft	Manchester City Council	Medium	Yes	1000	
B10	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B11	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B12	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B13	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B14	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B15	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B16	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B17	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B18	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future
B19	Stockport Road - verge south of Booker Wholesale building	Soft	Booker Wholesale?	Medium	Yes	1000	Landowner would need to agree to maintain the trees in future

B20	Walkway between Billing Avenue & Brydon Avenue	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B21	Walkway between Billing Avenue & Brydon Avenue	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B22	Walkway between Billing Avenue & Brydon Avenue	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B23	Billing Street - verge close to junction with Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B24	Brydon Avenue - verge adjacent to 80 Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B25	Brydon Avenue - verge adjacent to 80 Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B26	Grassed area at the junction of Brydon Avenue & Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B27	Grassed area at the junction of Brydon Avenue & Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B28	Grassed area at the junction of Brydon Avenue & Cotter Street	Soft	Manchester City Council	Small	Yes	750	Could be particularly prone to vandalism in this location. Double staking and or underground guying may be required
B29	Grassed area locked between Mancuian Way, Paddock St, Thirsk St	Soft	Manchester City Council	Medium	Yes	1000	A tree here would provide a buffer between the Mancunian Way and residential housing to the south.
B30	Grassed area locked between Mancuian Way, Paddock St, Thirsk St	Soft	Manchester City Council	Medium	Yes	1000	A tree here would provide a buffer between the Mancunian Way and residential housing to the south.
B31	Grassed area locked between Mancuian Way, Paddock St, Thirsk St	Soft	Manchester City Council	Medium	Yes	1000	A tree here would provide a buffer between the Mancunian Way and residential housing to the south.
B32	Grass island between Bond Street, Manor Street and The Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	

B33	Grass island between Bond Street, Manor Street and The Mancunian Way	Soft	Manchester City Council	Medium	Yes	1000	
B34	Grass verge between Travis Street and Fairfield Street	Soft	Manchester City Council	Large	Yes	1250	Landmark Tree opportunity
B35	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B36	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B37	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B38	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B39	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B40	Large grass verge between Wilson Street and Lauderdale Crescent (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B41	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B42	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B43	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B44	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B45	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B46	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B47	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B48	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B49	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B50	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B51	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B52	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy

B53	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B54	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B55	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B56	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B57	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B58	Large grass verge between Wilson Street and Lauderdale Crescent (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B59	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B60	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B61	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B62	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B63	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B64	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B65	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B66	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B67	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B68	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B69	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B70	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B71	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B72	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B73	Large grass verge between Wilson Street and Polygon Avenue (eastern boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B74	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy

B75	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B76	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B77	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B78	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B79	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B80	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B81	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B82	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B83	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B84	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B85	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B86	Large grass verge between Wilson Street and Polygon Avenue (western boundary)	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B87	Large grass verge between Wilson Street and Polygon Avenue (northern boundary)	Soft	Manchester City Council	Medium	Yes	1000	
B88	Large grass verge between Wilson Street and Polygon Avenue (northern boundary)	Soft	Manchester City Council	Medium	Yes	1000	
B89	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B90	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B91	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B92	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B93	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B94	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B95	Grassed area off Dryden Street, opposite the Childrens Nursery	Soft	Manchester City Council	Medium	Yes	1000	Room for a species with a relatively wide spreading canopy
B96	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path

B97	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B98	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B99	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B100	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B101	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B102	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B103	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B104	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B105	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B106	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B107	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B108	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B109	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B110	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B111	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path

B112	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B113	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B114	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B115	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B116	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B117	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B118	Grassed area off Dryden Street, opposite the Childrens Nursery. Alongside the path leading to Plymouth Grove	Soft	Manchester City Council	Medium	Yes	1000	Tree to form part of an avenue alongside the path
B119	Brunswick Street - Between Cabot Street and Kincardine Road	Hard	Manchester City Council	Medium	Yes	3250	
B120	Brunswick Street - Between Cabot Street and Kincardine Road	Hard	Manchester City Council	Medium	Yes	3250	
B121	Shakespeare Walk - Between Lauderdale Crescent and Jevington Walk	Hard	Manchester City Council	Medium	Yes	3250	
B122	Shakespeare Walk - Between Lauderdale Crescent and Jevington Walk	Hard	Manchester City Council	Medium	Yes	3250	
B123	Shakespeare Walk - Between Lauderdale Crescent and Cavanagh Close	Hard	Manchester City Council	Small	Yes	3000	
B124	Shakespeare Walk - Between Lauderdale Crescent and Cavanagh Close	Hard	Manchester City Council	Small	Yes	3000	
B125	Shakespeare Walk - Between Lauderdale Crescent and Cavanagh Close	Hard	Manchester City Council	Medium	Yes	3250	
B126	Shakespeare Walk - Between Lauderdale Crescent and Cavanagh Close	Hard	Manchester City Council	Medium	Yes	3250	
B127	Shakespeare Walk - Between Lauderdale Crescent and Cavanagh Close	Hard	Manchester City Council	Medium	Yes	3250	
B128	Cavanagh Close - opposite junction with Tarleton Street	Hard	Manchester City Council	Small	Yes	3000	
B129	Cavanagh Close - opposite junction with Shakespeare Walk	Hard	Manchester City Council	Small	Yes	3000	
B130	Tarleton Street, side of n0 7 Cavanagh Close	Hard	Manchester City Council	Medium	Yes	3250	

B131	Tarleton Street, side of n0 7 Cavanagh Close	Hard	Manchester City Council	Medium	Yes	3250	
B132	Tarleton Street, outside n0 1	Hard	Manchester City Council	Small	Yes	3000	
B133	Tarleton Street, outside n0 12	Hard	Manchester City Council	Small	Yes	3000	
B134	Tarleton Street, outside n0 7	Hard	Manchester City Council	Small	Yes	3000	
B135	Tarleton Street, outside n0 17	Hard	Manchester City Council	Small	Yes	3000	
B136	Tarleton Street, outside n0 21	Hard	Manchester City Council	Small	Yes	3000	
B137	Tarleton Street, outside n0 29	Hard	Manchester City Council	Small	Yes	3000	
B138	Tarleton Street, outside n0 35	Hard	Manchester City Council	Small	Yes	3000	
B139	Jevington Walk car park	Hard	Manchester City Council	Small	Yes	3000	
B140	Higher Ardwick - outside n0 7	Hard	Manchester City Council	Medium	Yes	3250	wide pavement 3m+
B141	Higher Ardwick - outside n0 15	Hard	Manchester City Council	Medium	Yes	3250	wide pavement 3m+
B142	Higher Ardwick - outside n0 25	Hard	Manchester City Council	Medium	Yes	3250	wide pavement 3m+
B143	Higher Ardwick - outside n0 31	Hard	Manchester City Council	Medium	Yes	3250	wide pavement 3m+
B144	Marshfield Street - at junction with Lauderdale Crescent	Hard	Manchester City Council	Medium	Yes	3250	
B145	Cavanagh Close - outside n0 62	Hard	Manchester City Council	Small	Yes	3000	
B146	Tarleton Street - at junction with Devonshire St South	Hard	Manchester City Council	Small	Yes	3000	
B147	Greengage - outside n0 53/55	Hard	Manchester City Council	Medium	Yes	3250	
B148	Aspull Walk - between Pembroke Close and Devonshire St South	Hard	Manchester City Council	Medium	Yes	3250	
B149	Aspull Walk - between Pembroke Close and Devonshire St South	Hard	Manchester City Council	Medium	Yes	3250	

B150	Aspull Walk - between Pembroke Close and Devonshire St South	Hard	Manchester City Council	Medium	Yes	3250	
B151	Beckhampton Close - at junction with Aspull Walk	Hard	Manchester City Council	Medium	Yes	3250	
B152	Beckhampton Close - at junction with Aspull Walk	Hard	Manchester City Council	Small	Yes	3000	
B153	Torquay Close - outside n0 18	Hard	Manchester City Council	Small	Yes	3000	
B154	Torquay Close - opposite n0 1	Hard	Manchester City Council	Medium	Yes	3250	
B155	Hitchin Walk - side of n0 1	Hard	Manchester City Council	Small	Yes	3000	
B156	Hitchin Walk - outside n0 3/5	Hard	Manchester City Council	Small	Yes	3000	
B157	Hitchin Walk - side of n0 7	Hard	Manchester City Council	Small	Yes	3000	
B158	Hitchin Walk - side of 2 Torquay Close	Hard	Manchester City Council	Medium	Yes	3250	
B159	Haymarket Street - outside n0 14	Hard	Manchester City Council	Medium	Yes	3250	
B160	Grass verge between Polygon Avenue & Wilson Street - south end	Soft	Manchester City Council	Fruit trees	Yes	3000	Scope for 15 fruit trees. Protective cages required. MM106 root stock recommended
B161	Grassed area on Ardwick Green North, at junction with Cotter Street	Soft	Manchester City Council	Fruit trees	Yes	1200	Scope for 6 fruit trees. Protective cages required. MM106 root stock recommended



