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**Campus Services** 

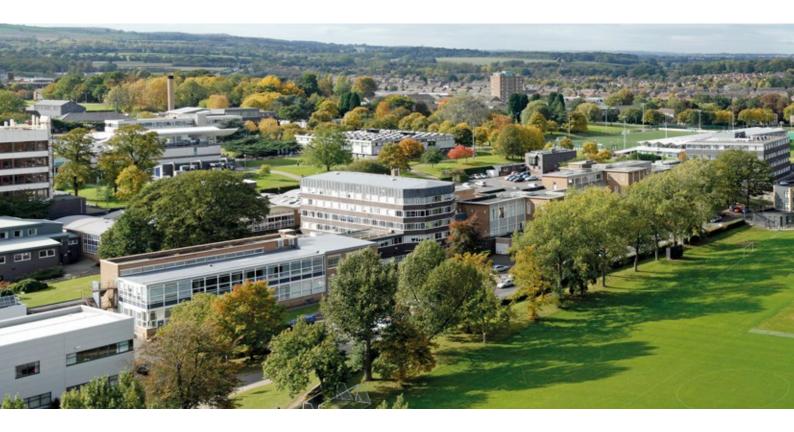
# Green Flag Management Plan



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### **OVERVIEW AND HISTORY**



Loughborough University is proud of its long history as an institution of further and higher education. Thanks to the vision of its founding father, Dr Herbert Schofield, it has been able to grow and develop into one of the country's top universities.

Throughout its history Loughborough University has built upon its distinctive characteristics. Today it is one of the country's leading universities, with a reputation for excellence in teaching and research, strong links with business and industry and unrivalled sporting achievement.

In 1909 a small Technical Institute in the centre of Loughborough was established, which provided local facilities for further education and offered courses in technical subjects, science and art Land was also acquired on the Burleigh Estate, enabling the early development of the University as it stands today.

In April 1966 Loughborough was awarded its Charter, in recognition of the excellence achieved by Loughborough College of Advanced Technology and its predecessor colleges. Then called Loughborough University of Technology, it was the country's first technological university. It was renamed Loughborough University in 1996.

Other developments have included the reunification in 1977 with Loughborough College of Education and with Loughborough College of Art and Design in 1998. Land acquisitions in 2003, 2006 and 2010 have contributed towards turning the site into the glorious 440 acre asset it is today.

Loughborough University's superb campus offers great facilities for every aspect of student life, with plenty of open space, gardens and sports areas interspersed with academic buildings and student accommodation.

In 2015 Loughborough opened a second campus on Queen Elizabeth Olympic Park in London. Loughborough University in London has diversified and expanded the high quality education offered to both postgraduate students and those looking to advance their professional development.



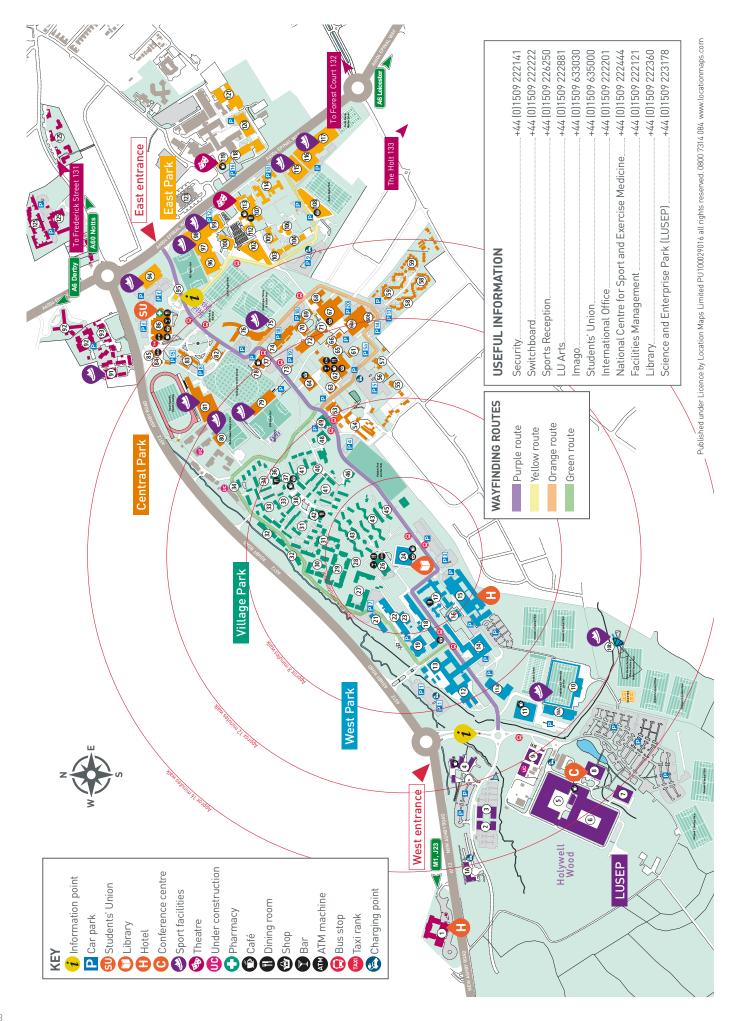
Loughborough University is one of the UK's largest single site green campus, covering over 440 acres and expanding all the time. Three quarters of those 440 acres are green, offering a wide variety of open spaces, sports playing fields, flower beds, shrub beds, themed gardens, woodlands and open spaces for staff, students and public to enjoy. The student accommodation is interspersed throughout the green areas making the environment one of the critical aspects in Loughborough University being voted first for 'Best Student Experience' in the National Student Survey 2017.

It is particularly renowned for engineering and technology and is unrivalled in sporting achievement, now holding the position of Top Sporting University in the world alongside Sydney University. It was the training base for Team GB in the 2012 Olympic Games. The University is employer to around 3,000 staff and hosts over 17,000 students annually. It is a focal part of the small, bustling market town of Loughborough and significantly contributes to the financial and social infrastructure.

Loughborough University has a national reputation for tackling environmental issues. Since 2009 considerable effort has been dedicated to raising awareness of the environment and into enlightening people as to how individual small actions can make a big difference to our precious environment.

The University is committed to acting in a socially responsible way that maximises its positive impact and minimises its negative impact on society and the communities in which it is based. This is reflected in the University's strategy Building Excellence which states that "we will embed sustainability and social responsibility into all of our processes, operations and developments" and "will work closely with local partners to enhance the social, cultural and economic wellbeing of the communities and regions in which we reside".

This Management Plan details the balance between the priorities and policies pertinent to the University and a timescale for putting them into practice. It illustrates the contribution the University is making towards the 'Green Environment' and sets out the wider strategic aims the University has so that protecting our environment is embedded into university culture. The production of this document allows the contribution that the University makes to the local community to be measured and progress against key objectives to be monitored. It also explains how the University grounds and gardens are managed, how community groups contribute, what the imminent proposed projects are and how they will be implemented.



### A WELCOMING PLACE



### **GOOD AND SAFE ACCESS**

The town of Loughborough is conveniently located between the cities of Leicester and Nottingham and is in the very heart of the country. The University itself is situated approximately two and a half miles from junction 23 of the M1. It is served by a number of bus routes, (the campus itself has its own bus service free to students and staff).

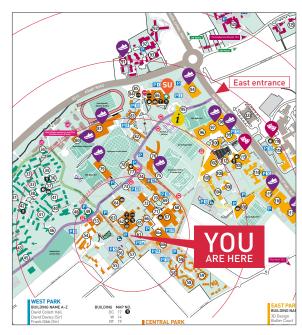
It is like a small town located within Loughborough and the campus boasts many and varied facilities including banks, a dentist, supermarkets, a medical centre, a pharmacy, hairdresser, taxi office, optician, children's nursery and various restaurants and bars. It is clearly signposted from all the main approach roads. The University has a central gatehouse on Epinal Way, which is staffed 24 hours a day, 365 days a year. It also has a gatehouse on Ashby Road and other barrier operated entry points across the campus. Security cars patrol the campus all day, every day. There is also a 24 hour telephone response and an additional emergency number used for specialist incidents. The campus is an access route across Loughborough town and many short cuts are to be found by using the campus. There are plentiful maps positioned across campus and staff are always willing to guide a lost visitor. The various pedestrian entrances to the University are signposted and include polite requests to consider our neighbours.

### **SIGNAGE**

Information boards across campus are plentiful. Each one indicates where you are and shows the perimeter zones of the five different parks into which the campus is divided. Main roads through campus have their own street name boards but with 'University Road' running from Epinal Way to Ashby Road – just over two miles – extra localised boards and signage are necessary. The campus has an interactive map which can be found on the homepage. https://maps.lboro.ac.uk/

The signage across campus is one of the areas where we feel we could do better. In the Gardens team, we are currently investigating whether there is a regular cleaning/maintenance programme since we receive requests prior to most open days advising the signs are dirty. Temporary notices are often tied to permanent signposts by students or members of staff and never removed. Although this is not in the Gardens' remit it is something we are working towards improving.

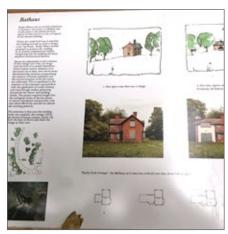
Some signs are now being more holistically produced to compliment the project they are representing and are intended to be more sympathetic to the environment in which they are positioned.



You Are Here boards make it easy to find your way

This entrance will be locked each day from 10.30 p.m. until 6.00 a.m.





Information board for the recently protected Bathaus



The Bathaus



### **EQUAL ACCESS FOR ALL**

The University is served by several local bus routes. The campus itself has its own free 'Kinchbus' service forming part of wider bus routes. Journeys made within the campus boundary are free to anyone on site. Once the bus leaves campus a regular fare is charged. The University is anxious to provide access to our neighbours and there are prescriptive footpaths across the campus to facilitate this. There is only one legal Public Right of Way on the campus located on the Science and Enterprise Park. The University closes its boundary every year to ensure that no further rights of way/easements are established by prescription. Dogs may not be exercised at all on University property and this extends to walking dogs through the campus.

The University encourages the development of an environment in which diversity is valued. This means independent access, or, at least, access with minimal assistance for all abilities. Creating equal access for all is a constant and permanent objective for the University; an important step towards becoming more welcoming to people with disabilities is understanding that services, and the built environment may themselves be enabling or disabling.

### HEALTHY, SAFE AND SECURE

### SAFE EQUIPMENT AND FACILITIES

There is a dedicated Health and Safety department which covers all aspects of health and safety matters on campus, including occupational safety, fire, radiological protection, hazardous waste, emergency procedures and insurance issues arising from incidents which are occupationally related. The website can be found via this link:

#### www.lboro.ac.uk/services/health-safety/

Within the Grounds and Gardens department, health and safety is of paramount importance and is monitored and measured internally. In early 2017 the Reactec HAVwear system was implemented to measure Hand Arm Vibration on all vibrating machinery. Risk Assessments are written and updated within the department and each team holds a selection of relevant risk assessments in a folder in their vehicle to which they can refer at any time.

CoSHH information is held centrally and Safety Data Sheets are also filed in paper format with the relevant chemicals should accidents occur. Contractors and event organisers are required to provide Risk Assessments, Method Statements and insurance details prior to commencing work on campus. External tradespeople undergo a Health and Safety and Environment induction which sets out the expectations of the University and their responsibilities whilst on campus.

The Grounds and Gardens office has a detailed spreadsheet of all vehicles and machinery that is owned or leased by the department. Purchase dates, service dates and renewal dates are all documented as well as serial numbers, supplier's details, registration numbers, cost and the noise and vibration levels.

In addition, all vehicles and trailers are checked monthly by the individual teams. Any faults are reported via the internal system and repairs carried out by the on-site mechanic or external contractors. The hours are recorded so services can be carried out in a timely fashion.

### PERSONAL SECURITY ON CAMPUS

The University is patrolled by security officers 24 hours a day 365 days a year. The team work 12 hour shifts from 6am to 6pm. The Security Team's mission is to create a secure academic and business environment by protecting people, information, property, and safeguarding the University's reputation. The officers are deployed on a patrol and response basis, performing foot and mobile patrols throughout campus. At night, during term time, they also patrol the main road leading from the University to the town centre and some residential areas that have a high student population. Trained first aiders (also trained in and able to use defibrillators) are available on all shifts.

### DOG FOULING

There are signs at all entrances and around the sports pitches advising that dogs are not to be brought onto or exercised on campus, so this is not a problem the University regularly has to deal with. In the unlikely event any should be found, the cleaners or gardeners would pick it up with gloved hands, either on a shovel or in a bag and dispose of it following the guidelines in Risk Assessment 1Ga.

# APPROPRIATE PROVISION OF FACILITIES

Public areas where there are retail outlets have facilities for all to use. Staff can access other buildings using their staff ID cards. The Students' Union area has a selection of shops, banks, food outlets, a hairdresser, optician, chemist and dentist. Elsewhere on campus are more shops, launderettes, cash points and a cycle shop. The University has two state-of -the-art fitness centres which offer discounted rates to students and staff.

### QUALITY OF FACILITIES

#### **Entrances**

The University has two main gatehouses. The Epinal Way gatehouse, is staffed 24 hours a day, 365 days a year. The gatehouse on Ashby Road closes from 11pm to 7am but is open most weekends and Bank Holidays. Other secondary barriers are located at different entry points across the campus which have CCTV and are operated by staff ID cards or through an intercom system to the central gatehouse on Epinal Way.

The secondary barriers are closed nightly between 9pm and 10.30pm and opened daily at 6am; forcing all out of hours traffic to report to the main gatehouse on Epinal Way. The campus has to be closed to members of the general public for 24 hours in a year in order that the University campus does not become deemed a public right of way.

The pedestrian entrances to the campus are signposted with a welcome board. These boards are also situated at the boundaries of each park with a "You are Here" bubble to assist with orientation.

### Roads and rootpaths

The roads and footpaths around campus are constantly undergoing maintenance and repairs when required. They are kept clean, litter free, leaf free and are gritted in icy weather. Some of the less formal footpaths which are not paved are simply mown or left to maintain themselves, (along the Fruit Route the thoroughfares are merely worn tracks along grassed areas to maintain the integrity of the vision of the Fruit Route).

### Lighting

Being a largely residential campus the University is well lit with all main routes, car parks, footpaths and tracks maintained and illuminated. Some pedestrian areas have low level lighting.



### WELL MAINTAINED AND CLEAN

## LITTER AND WASTE MANAGEMENT

We recycle as much waste as possible. Our green waste is dealt with on campus - none of it leaves site. It is all recycled in some form or another. The chippings from pruned brash are used for barking the beds in less prestigious areas. Coppiced hazel is used for wattle fencing, mulching or habitat piles.

Leaves are collected and used for compost as are all bedding plants at the end of the season when the beds are stripped. Any hand pulled weeds (unless they are invasive species – Japanese Knotweed, Himalayan Balsam etc.) are also composted. We make the compost heaps by depositing our green waste in a purpose-built tip area. The compost is made, turned, sieved sprayed and used on beds. Leftover bedding is distributed amongst community groups particularly our Loughborough in Bloom partners who use it for their own community projects. If there are ever any left-over shrubs these are also distributed to community groups.



Waste bins across campus carry messages to reduce waste and aid in our recycling efforts.





There is a dedicated team of litter pickers across the campus. There are over 150 bins on campus and these are emptied on a strict rota and also on an ad-hoc basis and are visited more frequently during University events. All bins are dual bins and have a recycling option. We have reduced the number of non-recyclable cups being used with the introduction of the Loughborough Cup. This is a branded reusable cup which can be bought in most retail outlets across campus and for £6 you receive three hot drinks plus the cup.

We have wood, metal, plastic, cardboard, paper and general waste skips and a separate skip for inert materials. The general waste is further processed to allow even more recyclables. A fraction goes to energy recovery. **Only 5% of our total waste ends up in landfill** (total waste is 2000 tonnes per year of which 5% ends in landfill).

Hazardous waste and clinical waste is dealt with via a separate process which is managed by our Environmental Manager and collected by Biffa/PHS.



Use of The Lougborough Cup means we have significantly reduced our disposable cup use across both our campuses.

## GROUNDS MAINTENANCE AND HORTICULTURE

The Grounds and Gardens Team at the University consists of 30 permanent members of staff, four seasonal workers, one apprentice, three students from Specialist colleges and regularly accommodates Work Experience students from local horticultural colleges.

The team comprises two managers, two full time arborists, cricket and sports grounds staff, skilled and semi-skilled gardeners and tractor/mower operators. For ease of organisation, the University campus is divided into five geographical parks, (East, Central, West, Village and Holywell) with the off campus properties forming part of Central Park. The gardeners are divided in the same way with teams of two or three gardeners each responsible for one of the parks. The tractor, ride on mower operators and the arborists cover all areas.

On Tuesdays, Wednesdays and Thursdays the department welcomes a student from Homefield Specialist College. These three students work with the same gardening team each week and are given specific tasks to do which form part of the gardeners' day-to-day maintenance programme. The students have been coming regularly with one in his eighth year and the newest attending for just a few months.

The sports grounds team is divided into three smaller teams. One team of four people is wholly responsible for the two cricket grounds. The other two sports grounds teams are divided geographically and comprise permanent members of staff and may have agency workers in high season.

Loughborough University is home to the National Cricket Performance Centre, (NCPC) which has been here since 2004. Its two grounds plus practise areas provide training facilities for the students and other cricketers of varying abilities and distinction. We have a partnership with the England and Wales Cricket Board which requires the university to provide training and match facilities for all their age group teams right up to the England Test Squad. The NCPC is also involved in research into exciting new surfaces, testing playing characteristics of different surfaces and preparing teams for overseas tours.

The two grounds - Haslegrave and Brockington - are of county standard with Haselgrave being the primary pitch. Head Groundsman William Relf was awarded Best University Ground in 2011 and has been runner up four times in the competition.

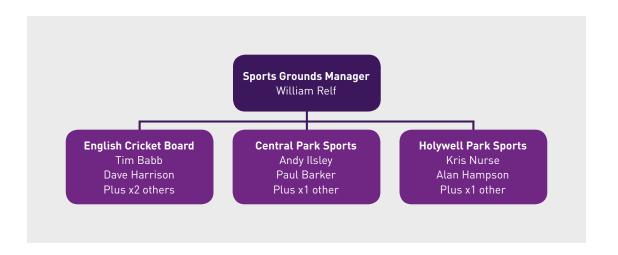
In 2012 Loughborough University was the official training base for the British Olympic team. This training period saw athletes of various disciplines using the specifically refurbished areas of the athletics stadium, beach volleyball, water based hockey, Olympic swimming pool, power base gymnasium, throw centre, 14 outdoor football and rugby pitches and the tennis courts.

The University holds a three year contract to host the school games which is a major event in the summer. Loughborough has been top of the BUCS (British Universities and Colleges Sport) competition for 37 years The teams play league and tournament games year round on campus.

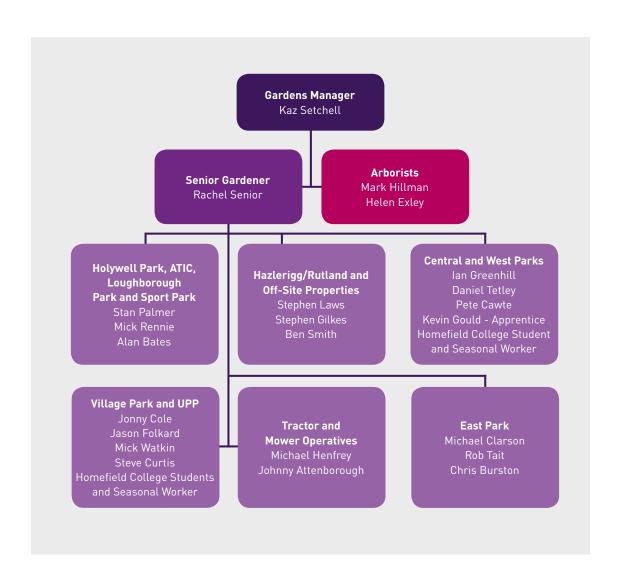
The sports grounds team work closely with the University Sports Development Centre, who run the sport, coaching, physio, nutrition and recruiting. The grounds team maintain the outdoor facilities on their behalf. In addition to the natural playing surface the university also has an all year-round rugby pitch with a 3G rubbercrumb surface, a water-based hockey pitch, various other artificial pitches and beach volleyball courts.



### **GROUNDS TEAM**



### **GARDENS TEAM**



## CAMPUS HORTICULTURAL MAINTENANCE

#### Mowing

We have two ride-on mower operatives who have a two-weekly schedule so the campus is mown regularly and in order. They both begin in the approximate centre of campus and mow outwards covering all large grass areas. The gardeners then follow behind back up mowing or occasionally front up mowing if a mower is out of action. The teams follow their mowing with blowing the pavements and stairways to remove resultant arisings.

### Weed control

All teams have their own spraying operatives and herbicide application is carried out according to weather, conditions and need. One application of residual herbicide is applied to the bases of building lines and obstacles per year at the beginning of the growing season. The teams will then apply a glyphosate based chemical throughout the season as and when required and conditions allow. The Gardens department is trying to implement more holistic, environmentally friendly practices where chemicals are concerned and we have rationalised our spraying regime. We leave many hedge bottoms un-treated unless the hedge is in a prestige area where we spray only the side exposed to public view. We have moved over to use a weed burner on large hard surfaces such as our events square and clay tennis courts. Where there are major events looming, such as In Bloom judging, open days or graduation ceremonies, the teams use weed scrapers along the gutters and hard surfaces to remove the weeds instantly and without the need for chemical.

#### Pruning

Seasonal pruning is carried out throughout the year according to the shrub and the month, with a majority of the shrub beds being hard pruned in the winter. We endeavour to ensure we get the best out of the shrubs we plant, leaving berries and flowers as long as possible when weather extends the season.

### Chipping/shredding

This is done on site at our gardeners' tip on a rota basis one day per week. Holywell Park currently have their own tip. Piles of brash that won't rot down quickly are put on a pile to be shredded through the Gandini shredder.

### Bin emptying/litter picking

The University is committed to providing a clean and safe environment for all who use it. Whilst the litter picking and bin emptying processes are adequate most of the year, they do not suffice during busy times

and particularly during Freshers week and Student Return in the last week of September. The design of the bins is under constant scrutiny – aesthetically pleasing receptacles often do not have sufficiently large enough openings for the huge pizza boxes many students favour, and a bin can appear full with just one item. This is an area in which the University is seeking to improve with representatives from Environmental Management, Gardens and Campus Services (who are responsible for the litter pickers) joining together to pool their expertise and improve the process at busy times

Some sites (eg the two hotels) empty their own bins. The Gardens staff empty bins three times a week when students are here, (Monday, Wednesday and Friday). A member of the Gardens team currently provides four-hour cover on a Saturday morning to empty the bins and litter-pick in the areas with high weekend footfall – Students' Union, Edward Herbert Building, around the all-weather playing pitches and Pilkington Library.

#### Leaf clearance

This starts in October and continues until the leaves have all fallen and been cleared away – so the duration of leaf clearing season is sometimes extended due to the weather. Generally, this goes on into the New Year. The paying customers have a separate schedule that is adhered to by the teams. Some leaf clearance is carried out manually, eg steps and paths. The large areas are cleared with the Trilo, a vacuum sweeper which was purchased by the Gardens department in 2016 to make the operation of leaf collecting more efficient.

#### Mulching/barking

Whatever the arborists create is used directly on certain beds however we do buy in better quality bark for use on ornamental shrub beds. This is topped up on a needs basis at each team's discretion.

### Prestige areas

These are the 'shop windows' of the University, and therefore given extra attention; the Fountain Lawn outside Hazlerigg and Rutland buildings, (which are the original buildings of the university), the Swimming Pool bank on Epinal Way and the Ashby Road roundabout at the West Entrance. Then we have the internal prestige areas; the Walled Garden and Garden of Remembrance on Central Park and Shirley Pearce Square in East Park.

The Fountain Lawn, The Walled Garden and The Garden of Remembrance are mowed with roller mowers on a weekly basis thus creating a striped finish. The shrub beds are weeded and tidied on a weekly basis and the herbaceous borders in the Walled and Remembrance Gardens are tended to weekly, with dead heading, dividing, weeding, cutting back and thinning out being regular tasks.



The Walled Garden





The Swimming Pool bank, Crown and University Shield

### Seasonal bedding

Currently, we have 18 flower beds which are planted out with spring bedding in November and summer bedding at the end of May. This currently equates to 21,400 individual plants twice a year. We have rationalised this for 2018 - one bed has been grassed over and the whole area planted out with bulbs, one will be grassed over and four are being converted to permanent planting. This will save on resource, water and long-term costs. The beds are stripped of the old bedding, rotovated, weeded and compost added and then replanted at the beginning of the next season. The Swimming Pool bank (above) usually has a themed planting plan, past displays have been the Olympic Rings in 2012 when the University hosted Team GB for the London Olympics, a crown to symbolise the Queen's 90th birthday in 2016, a poppy to commemorate the centenary of WW1 and a ladybird in recognition of the 100th birthday of Loughboroughborn Ladybird Books.

### Replanting

During the summer months the gardeners and arborists begin considering what replacement shrubs and trees will be required. Dead plants are removed and either replaced like for like, or, if it is a failed second attempt with a certain plant, an alternative will be considered. Gaps in shrub beds are filled. Sometimes new areas are planted up; this summer we are rationalising our bedding plants and some of the beds that were previously given over to seasonal bedding schemes are going to be replaced with permanent planting. The shrub orders are placed in October with planting carried out over the winter.



### Mechanical bulb planting

The Gardens department use Dutch company Lubbe and Sons to plant swathes of bulbs mechanically. The latest area to be planted was complete in November 2017 when we grassed over a flower bed on the Epinal Way/Forest Road junction and converted it to a Biodiversity bulb mix to reduce cost, maintenance and water.

### Lawn renovation

Prestige lawns such as the Walled Garden and Fountains Lawn are renovated every few years or when they need it. The lawns are treated with selective herbicide, scarified and then sand and new seed are put down.



### Gritting and snow clearance

During the winter months in working hours, gritting and snow clearing are dealt with by the Grounds and Gardens staff, and out of hours, by a call out team.

The University is prioritised as follows:

- 1. Main campus road from East to West entrances
- 2. Remaining roads
- 3. Medical Centre
- 4. Main campus path from East to West entrances
- 5. Holywell Park/Loughborough Park/Sport Park and ATIC roads
- 6. Steps/path inclines
- 7. Main car parks
- 8. Remaining paths
- 9. Responses to phone calls
- 10. Any remaining areas

Dealing with snow and ice during working hours is carried out by the grounds staff. Large equipment, (snow plough and gritting lorry) is used on the major roads across campus and less accessible areas are cleared manually, using smaller equipment. To pre-empt bad weather/icy conditions during the call out period, the following procedure is adopted each day at 3pm:

- The first contact on the call out rota contacts the Leicester Meteorological Office for a weather report; if snow, ice or sub-zero temperatures are predicted, they will make the necessary arrangements to start salting that evening. This is carried out with the joiners' lorry and an Epoke gritting machine.
- During heavy snow fall there are two snow ploughs that can be utilised to keep major roads clear.



Holywell lake

### Water features

We have a lake, an ornamental pond, and three habitat ponds and are currently converting an ornamental pond into a bog garden.

Holywell Lake was constructed as part of the original British Gas Research Station. It is fed by two streams and acts as the storm water drainage outlet for the adjacent University buildings. It is stocked with 17 varieties of fish and is a valuable habitat to an assortment of wildlife.

#### Arboricultural maintenance

We have two full time arborists who maintain a safe environment for students, staff and public by carrying out regular tree surveys to identify any potential dangers or weaknesses in the tree stock of 7,500 trees (this number excludes the two ancient woodlands: Holywell and Burleigh Woods). They carry out routine maintenance – cutting off overhanging branches, crown lifting, pruning and sometimes felling. The woodlands are walked at least once a month and after every windy day or after stormy weather. Routine maintenance would be checking footpaths for overhanging branches, dead wood and ensuring safe and stable trees.

The arborists are also primary caretakers of the vast array of wildlife we have on campus, providing habitats for all levels of the food chain, putting bird seed out if necessary, rescuing trapped animals and taking injured wildlife to a local specialist vet. We have even climbed a tree in one of the woodlands to rescue a cat.

### SOME OF OUR PATIENTS....











The arborists liaise with neighbours, staff, contractors and development staff. The senior arborist who has worked at the University for 25 years knows where the mature and over-mature trees are situated and checks these at least twice a year. His knowledge and experience prove invaluable to our campus. We use the Ezytreev database to keep a record of all the trees on campus; it holds details of when surveys are carried out, the tree's age, size, any special interest eg. memorial trees, whether the tree is a Fruit Route tree, recent works and any other information we deem important.

The role includes a considerable element of public relations work since not all our neighbours are totally tree friendly! Falling leaves, lack of light, blocked gutters and noisy pigeons are all cited as reasons we should fell trees our neighbours consider to be a nuisance – even with new-builds where the 'problem' tree has lived peacefully for many, many years prior to the house being built.

The arborists have a wide range of machinery including a. Landrover with a winch, a chipper, a pole pruner, five chainsaws of varying sizes, a milling machine and various hand tools.

Fallen trees are used for habitat piles in the Carbon Emissions offset wood. Logs are piled up where the tree falls so people can help themselves to firewood. Larger logs are planked and used for seats or tables. Poor quality wood is used for habitat piles etc. We have recently started to style basic sculptures out of the remaining stumps which is proving popular. Dead or lost trees are replaced with indigenous species where possible. In some areas, other non-native trees are planted for special colour, interest or structure.

### Building and infrastructure maintenance

Vandalism - This is an increasing problem and the summer of 2017 saw lots of vandalism from local youths seeking out places in which to spend the long evenings of the summer holidays. We have a volunteer's garden (Loughborough Landscaping and Gardening Society), very close to one of the University entrances which leads from a housing estate and the garden shed provided for the volunteers was broken into numerous times. The youths also extended their high jinks to the Garden of Remembrance where benches and the wooden arbour were vandalised, despite regular security patrols. In response to this, Security and the resident Chaplain decided to lock the Garden of Remembrance out of working hours. New locks were provided on the LAGS shed and gate to the Garden of Remembrance.

**Graffiti** – This is a rare problem but is something to which the Facilities Management team rapidly react. It is cleaned off with a pressure washer by a member of the builders' section.

### Equipment and maintenance

The Grounds and Gardens department is equipped with a diverse range of modern tools and machinery. Each team has their own ATV, mowers and hand tools and access to whatever other equipment is required from the pool of machinery. Most of the equipment is purchased and maintained by our on site mechanic. Leased equipment is maintained by the supplier and other more complex repairs are carried out by one of the local suppliers. The department has a large variety of vehicles and machinery, both purchased and lease hire.

- two Fendt tractors 1 with bucket
- three John Deere compact tractors different engine sizes
- eight John Deere ATVs
- two Polaris ATVs
- one Ransomes Parkway ride on mower
- one John Deere 1570 commercial front mower
- one Shibaura tractor unit with muthing flail
- one Amazone Profihopper scarifying/ collecting mower
- one Jacobson Fairway 250
- two John Deere 2653b Precision cut trim and surround mowers
- 12 trailers of various sizes
- one low loader
- one Mitsubishi Trojan
- one Landrover Arborist vehicle
- one Gandini shredder
- one Trilo leaf collector/sweeper

We are trialling various electric ATVs and models of battery powered machinery. Following evaluation this is an area we hope to expand upon, reducing our fossil fuel powered machinery year on year.

The teams also have an array of specialist machinery including: Vertidrain, bunker rake, snow plough, seeder, weed burner, gritter, roller, tractor mounted and walk behind sprayers to mention a few. Hand tools are either petrol or battery and include strimmers, brush cutters, hedge cutters, long armed hedge cutters, blowers and chainsaws.

# SUSTAINABILITY AND BIO DIVERSITY IN THE UNIVERSITY ENVIRONMENT

In order to implement and demonstrate continual improvement to our environmental performance the University is accredited to the ISO 14001 2015 Environmental Management System (EMS).

The EMS enables our organisation to manage its environmental performance in a comprehensive, systematic and documented manner. It serves as a tool to reduce the impact, both immediate and long-term, of our operations on the environment. It encourages the allocation of resources, assignment of responsibility, and ongoing evaluation of practices, procedures and processes with a view to continual improvement of the system. We have now achieved the Platinum phase as well as the ISO14001.

Details of the EMS can be found on the Sustainability website at:

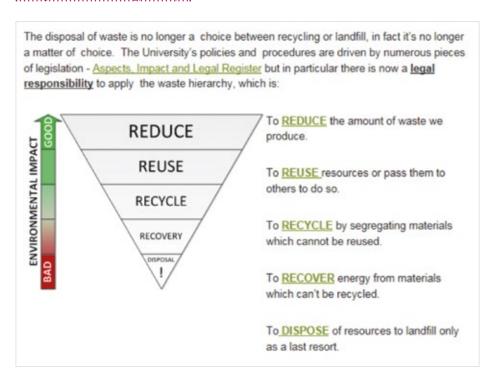
www.lboro.ac.uk/services/sustainability/policy/

The University sets objectives and targets to manage its waste and mitigate its environmental impact and these, along with how they are delivered are detailed in the Waste (Resource) Management Strategy:

www.lboro.ac.uk/media/wwwlboroacuk/content/sustainability/downloads/6.2.1.Waste%20 Management%20Strategy.03.00.pdf As part of the University's Environmental Policy and Environmental Standards, all staff and students now have a responsibility to adopt this hierarchy. Further information on each hierarchy stage can be seen by following the links:

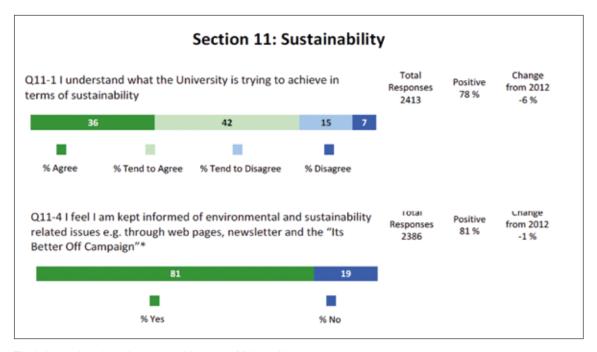
www.lboro.ac.uk/media/wwwlboroacuk/content/sustainability/downloads/5.2%20Environmental%20Policy%20.10.00.pdf

www.lboro.ac.uk/media/wwwlboroacuk/content/ sustainability/downloads/63827%20Environmental%20 Standards%20A5%203.pdf



### **ENVIRONMENTAL SUSTAINABILITY**

Energy and natural resource conservation, pollution



The information above is extracted from the 2016 staff survey.

### **PESTICIDE USE**

During recent years the Grounds and Gardens team has focussed on reducing pesticides application. Clearly, this will never be eradicated entirely however we are gradually introducing a rationalised schedule to considerably decrease their use. More grass areas are being left as 'habitat' fields with rides mown alongside footpaths or as walkways through the centre of the grass area. We spray only the public side of hedge bottoms and use no pesticides at all anywhere along the Fruit Route. In 2017 we trialled Nomix Enviro ready-mixed oil-based herbicides and now use these across the whole team for the bulk of the spraying.

This system vastly reduces the amount of water used and makes a huge difference to the physicality of the task. The Nomix comes in 5l boxes with soft back pack style carriers. Compared to a conventional sprayer with a mixture of 15-20 litres of water and chemical within, this is a lighter and more comfortable option.

### **PEAT USE**

The university does not use peat anywhere on campus. Any purchased compost is peat free.









# ARBORICULTURE AND WOODLAND MANAGEMENT

There are over 7500 trees on the campus and outside properties and two heritage woodlands. The trees are managed by two full time arborists and occasionally contractors who do ad-hoc jobs and assist every autumn with an intensive hedge cutting programme. Our two ancient woodlands (once part of an 11th century deer park) have:

- A springtime carpet of bluebells
- Summer bounty of blackberries
- Over 50 species of fungus
- More than 200 varieties of moth and 16 varieties of hoverfly

The springtime bluebells in the publicly accessible Burleigh Wood have become a much-anticipated yearly spectacle, with local residents holding coffee mornings at weekends to coincide with the abundance of visitors.

Maintenance in these woodlands is part of the annual programme and foot bridges and boardwalks are checked visually and repaired or replaced when necessary. All the campus trees are logged on a bespoke tree database – Eezytreev – and inspections are regularly carried out.









### FRUIT ROUTE

In addition to the heritage woodlands and campus trees, the University proudly boasts a Fruit Route. This was established in 2011 and combines foraging, the arts, biodiversity and community. The vision was to plant a 1km circular route of fruit trees, nut trees and edible plants along footpaths and cycle paths across the University campus thus creating a spring snowfall of blossom and an autumnal abundance of fresh fruits and berries for harvesting, eating and distributing. This vision won the Guardian Higher Education Sustainability Award in 2014.

Different varieties of apples, pears, plums, damsons, greengages, cherries, medlars, apricots, quinces, grapes, chestnuts, mulberries and almonds, as well as foraging produce such as blackberries, wild raspberries, nettles, elderflower, gingko and garlic mustard can be found along the route for the University community to harvest and enjoy. The species grown are suited to the local environment and our changing climate and are planted and cared for by people who live, work and pass through the campus.

The Fruit Route also provides an enriched habitat for plants, insects and wildlife as well as a location for outdoor learning and cultural activities.

The first 100 or so trees were planted in 2011 by students, community members and University staff, and since then the Route has been added to with over 50 additional trees. As trees and plants have died they have been replaced with exact species or where it was considered the location was not suitable for the plant in question, they have been replaced with alternative edible varieties.

The campus hosts at least two events per year, the main one being the autumn harvest. University staff, students and community members collect the fruit and store it in boxes ready for a Fruit Routes activities weekend which includes apple pressing, a bake off and other outdoor and cultural activities.

The Fruit Routes blog can be found at: https://fruitroutesloughborough.wordpress.com

Boxes of apples and pears are also distributed across campus to various prominent places, so the community can come and collect them to use for their own purposes. We supply fruit to one of our hotels for use in their kitchens, and to a local cafe.

Local BAP (Biodiversity Action Plan) habitats and other ecologically valuable habitats on campus include broad leaved woodlands, ponds, brooks, hedgerows and mature trees. Bird boxes have already been erected in relatively undisturbed areas of broad leaved woodland demonstrating how simple actions can improve biodiversity.

### Biodiversity Action Plan

lboro. ac.uk/media/wwwlboroacuk/content/sustainability/downloads/Biodiversity%20 Action%20 Plan%20 V3.pdf

#### Woodland Action Plan

lboro.ac.uk/media/wwwlboroacuk/content/sustainability/downloads/woodland\_management\_plan\_v2.pdf

#### Sustainability Action Plan

lboro.ac.uk/media/wwwlboroacuk/content/sustainability/downloads/Sustainability%20Action%20Plan%20V6.pdf



An example of the 2017 programme of events

### THE BEES

Nestled in a quiet corner of Holywell Park, a project is making quite a buzz. Five members of University staff are working together to manage a campus apiary, which has expanded in size from a single hive in 2012, to six flourishing colonies in the summer of 2015. With each colony housing up to 50,000 bees. Last year the team harvested 500lbs of 'Loughborough Gold' honey.

### **WILDLIFE**

The campus has 40 types of wild birds including herons, buzzards, woodpeckers, pheasants and kingfishers. Annually we erect around 10 new bird boxes in new locations and have seen a female kestrel successfully fledge three, four and then in 2017, five chicks.

The University currently has badger families on two of its sites and we have a camera up at one of our external properties – aptly named The Holt – which is recording nocturnal badger activity from a set situated adjacent to the student accommodation. The badgers venture through the fence foraging. To prevent the grass being dug up we are encouraging the students to feed the badgers on their own side of the fence to provide an alternative food source and hence discourage them from digging under.















### **CONSERVATION AND HERITAGE**

### NATURAL FEATURES; FLORA, FAUNA AND LANDSCAPE

Loughborough University has been built around the Burleigh Estate, which dates back to at least the fifteenth century. An early reference to the Burleigh estate describes how during the March 1644 Battle of Cotes Bridge in the Civil War, Parliamentary forces chased Royalists back to their garrison at Burleigh House.

The university itself has existed since 1966 when it was awarded its charter, nonetheless, the institution dates back to 1909, when the then Loughborough Technical Institute began with a focus on skills and knowledge which would be directly applicable in the wider world.



### CEDAR OF LEBANON

The Cedar of Lebanon tree was once a focal point of the original Burleigh Estate but is now surrounded by buildings of the modern University campus. In December 1990 heavy snow caused the top part of the cedar to collapse. What is left of the tree has recently been surveyed by an external Arboricultural Association registered consultant and has been certified non-dangerous and is not diseased.



The original Cedar of Lebanon tree prior to 1990



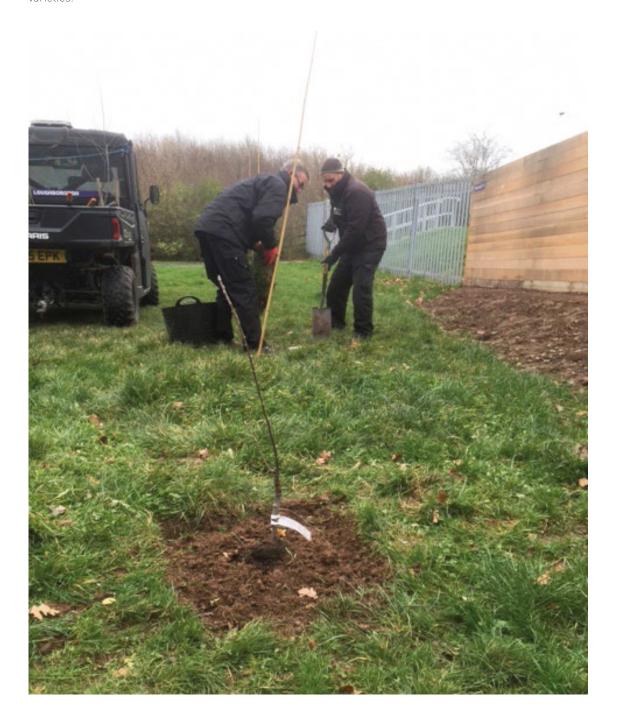
The Cedar of Lebanon soon after its collapse showing the lower heavy branches of the tree were propped up with oak telegraph poles.



### HERITAGE ORCHARD

A new venture for 2017/2018 is the planting of a Heritage Orchard. We have purchased historic Leicestershire varieties from GB Online and have started with five one-year old saplings, planted in the Holywell Park near the Observatory.

Varieties are: Barnack Orange, Langton Nonesuch, Leicester Burton, St Ailred and Martin's Custard. This is something we hope to expand upon year on year and eventually have about 20 trees of different local heritage varieties.



# CONSERVATION OF BUILDINGS AND STRUCTURES

### Burleigh Cottage

Reputed to be the oldest complete dwelling in Loughborough, Burleigh Cottage sits in the Central Park on campus. For many years it was home to the Security section and the keyroom and more recently was used as a store and locker room for the Facilities Management team. It is currently maintained as a listed building with the hope it may be developed in the future.

The Walled Garden of the original Burleigh Estate has barely changed over the years as the pictures below illustrate. It is one of the focal prestige areas of the university with the borders full of traditional herbaceous perennial planting and a variety of miniature and more interesting fruit trees such as miniature peach, cordon pear, apricot and pomegranate. A beautiful wisteria covers the wall and gated archway.



**Burleigh Cottage** 



The Walled Garden, then and now.





The Walled Garden is a prominent photo opportunity at Graduation ceremonies and has been used for wedding photos.

### **BASTARD GATES**

Throughout history, our iconic landmarks have stood the test of time and the campus itself has grown up around them. At the opening of Rutland Hall in 1932 Schofield announced that William Bastard, the Chairman of College Governors, had kindly donated a gift to the College. These were the gates – fondly known as the Bastard Gates – and have since formed the official entrance to the University access point near the Students' Union.



Bastard Gates

# COMMUNITY INVOLVEMENT AND PROVISION FOR THE COMMUNITY

### COMMUNITY INVOLVEMENT IN MANAGEMENT AND DEVELOPMENT

Loughborough is an open campus through which the public can walk, cycle, jog or take the bus. The University seeks to serve the community in which it resides, however because of the nature of being a university and the fact that the land belongs to it, our primary customer base differs from most public parks. Our main customer base is the 17,000 students and the staff members whilst out of season it is sports teams, conferences guests, special events quests and residents of the hotels. Developmental

decisions are not discussed with or approved by the general community. However, major developments are communicated via newsletters and websites and the University goes to great lengths to foster a harmonious relationship with its friends and neighbours. All are welcome on campus and information is available at every turn. The public can get on a bus and travel across or through campus. The paths are kept clear, safe and well lit. As part of the Centenary celebrations, campus walking/jogging routes with maps were created. They include interesting facts about the campus and sites to look out for on your way round. The jogging/fitness routes are signposted, distances are given at the beginning of the routes and there are additional signs as you progress on your chosen route.



## APPROPRIATE PROVISION FOR THE COMMUNITY

#### Forest School

We are particularly proud of our Forest School. Westwoods Nursery school is a pre-school in Loughborough for 3-5-year olds. The children enjoy supervised visits to Holywell Wood three or four times a week where they can play and learn about nature and the woodland environment. The children have built shelters, made activity trails with ladders, tyres and other disused items. Educationally the Forest School benefits them through learning about insects, wildlife and the importance of leaf litter and woodlands in general in the wider environment. The brook within the wood has freshwater shrimps and other pond life for them to learn about and explore. They have an annual nativity play in December which parents, friends and families attend.

More details are available at www.lboro.ac.uk/news-events/news/2017/october/study-reveals-forest-school-benefits/

The BBC filmed the Forest School in December and it was aired on the local news programme East Midlands Today.

### Loughborough in Bloom

The Gardens Manager – Kaz Setchell – is on the In Bloom Board. The partners on the Board meet throughout the year and decide themes and colour schemes for the coming year. We work with Charnwood Borough Council and submit our material for the portfolio which wouldn't necessarily be included in the July judging day, eg spring bloom. The judging route is decided upon and prior to the judging days, the Board monitor weeding and watering, tidiness and general maintenance along the route to ensure it is looking its best for the RHS judges. Loughborough has been awarded gold in its category for the past seven years and in 2012 won the overall competition for Small City in both the East Midlands and the National categories.

Charnwood Borough Council manage the marketing for the In Bloom events, this can be found at: www.loughboroughinbloom.wordpress.com

#### Fruit Routes

As detailed on page 21 the Fruit Routes events are major community get-togethers, with 2017's Harvest Festival weekend seeing more people attending than ever before.



### Homefield College

Homefield College is a relatively small local Independent Specialist College (and a charity) that makes provision for individuals with a range of learning difficulties. The majority of students are on the autistic spectrum. The Gardens team welcomes a student on Tuesdays, Wednesdays and Thursdays to work with a particular team. One of the students has been with us for over eight years and another for over 5. Occasionally, a Homefield student finds paid employment through the experience they have gained at the University.



Owen Piggon from Homefield College

### The Landscaping and Gardening Society

The Landscaping and Gardening Society (LAGS) is a student society which also welcomes members of the community. It meets on a Friday at 3pm.

www.lsu.co.uk/society/landscapingoursociety

"We are a student society, working to redevelop a previously neglected corner of campus, into one of its best outdoor green spaces. Our garden is a fantastic place to relax and we grow a huge range of vegetables, fruits and flowers which members can enjoy and cook with. We organise seasonal workshops on gardening (and the huge range of associated health benefits), cooking (using our own and local ingredients where possible) and living more sustainably (for example, practical ways to reduce waste, save money and reduce our individual environmental impact). We work closely with the University and local groups to coordinate a range of events, perhaps most famously, the annual campus fruit routes harvest and bake off! Perhaps most importantly of all, we are about having fun, meeting new people and sharing food, ideas and recipes from different cultures."



### Our partners and groups

Other Partners and Community Groups with which the Grounds and Gardens team is associated:

- DART training college
- Lubbe and Sons Ltd (Mechanical bulb planting)
- Charnwood Borough Council
- England Cricket Board
- Loughborough Students' Union
- Transition Loughborough
- Loughborough in Bloom Community Groups
- Loughborough ecologist Ed Darby
- Biodiversity Working Group
- Woodland Management Group
- LEBC Work Experience students with learning difficulties

### **MARKETING**

Loughborough University, although providing thoroughfares for the general public across campus, is not considered a 'park' that is open to the public. However, the events that are open to the public are well advertised through various mediums prior to the events taking place. The Fruit Route summer meeting and autumn harvests, for example, are promoted via Facebook, the University website, fliers and posters. The other participating partners, eg. Bom Bom Patisserie and Transition Loughborough also promote the events via their own mediums. There are Fruit Routes maps readily available on the days and at other times of year. Some departments, eg. Sustainability also have their own Facebook pages and promote events that way.

The University Annual Review is updated every year, and this year we have worked closely with our marketing colleagues in order to promote the work of the grounds and gardens teams. We are featured heavily in the new Annual Review video which is on the external University web page and is available to view by anybody, worldwide.

We partnered with the marketing department again on another project in 2017 – the promotional video for the Green Gown 2017 awards in which Loughborough were finalists in two separate categories. 'Maintaining the Green, Living the Sporting Dream' was the title of the entry submitted by the Grounds and Gardens section/ Sustainability, which showcased how we manage the juxtaposition of being the joint top sporting university in the world while embedding sustainability and biodiversity in all our horticultural practices. A copy of the video can be seen at this link: www.youtube.com/watch?v=RF9KYiJoyNw









# IMPLEMENTATION OF 2018-2023 MANAGEMENT PLAN

Long term Capital Resource projects	Outline scope	Target start date	Target completion date	Project Manager	Contractor
School of Arts Building (12748)	New Arts Building	8.19	7.21	Catherine Fleming	tbc
Student Village (12828)	New Build and refurbishment (Phase 1)	7.17	6.19	Peter Goldsworthy	Bowmer and Kirkland
Holywell Park (Access)	Alteration and refurbishment	tbc	tbc	Tim Oakey	tbc
Loughborough University in London (Phase 3) (11544)	Ground Floor Expansion	3.18	6.18	Peter Goldsworthy	Paragon Interiors
Student Union (12882)	Alteration to create larger Union building	tbc	tbc	Tim Oakey	tbc
Paula Radcliffe Athletics Pavilion	Refurbishment - reception and offices	5.18	8.18	Catherine Fleming	tbc
LUFS (Martial Arts)	Light refurbishment	3.18	5.18	lan Woodhouse	Brown and Kirby
Stadium Pitch	Change grass pitch to a hybrid surface	tbc	tbc	lan Woodhouse	tbc
Holywell 4 Pitch	Conversion to Artificial Pitch	tbc	tbc	lan Woodhouse	tbc
New Squash Facilities	Extension to the Tennis Centre	tbc	tbc	lan Woodhouse	tbc
Performance Centre	Upgrade of Sports Science plus S and C facilities	tbc	tbc	Tim Oakey	tbc
Tennis Centre	New Racquets Centre (Squash)	5.18	10.18	lan Woodhouse	tbc
Burleigh Cottage	New Visitors Centre	tbc	2.20	Tim Oakey	tbc
SportPark	Fourth Pavilion New Build	tbc	tbc	tbc	tbc
ECB Pitch	Cricket scoreboard	tbc	tbc	Tim Oakey	tbc
Burleigh Court	Refurbishment	3.18	2.2	lan Woodhouse	tbc
Short term Grounds and Gardens projects	jects				
Tranquillity Garden	Redevelopment for Centre for Faith and Spirituality	3.18	tbc	Rachel Senior	tbc
Litter bins	Transfer emptying to Domestic Services	4.18	8.18	Sarah Gorey	N/A
Litter bins	Upgrading/Changing to more suitable receptacles	1.18	tbc	Nik Hunt	N/A
Lamp posts	Removing posters and cable ties (area beautification)	1.18	N/A	Security	N/A
East Park Design School dry bed	Fill in reflecting ponds and convert to dry river garden	1.18	2.18	Kaz Setchell	Land B Landscaping
Wand S Building 2	Re-landscaping	2018	019	Graham Orsborne	Henry Brothers
Bastard Gates	Convert to permanent planting	12.17	2.18	Rachel Senior	N/A
Apprentice Gardener	Employ for 3 year apprenticeship	2.18	2.21	Kaz Setchell/Rachel Senior	DART Training
Coffee Grounds	Set up recycling system and distribute	2.18	ongoing	Kaz Setchell/Rachel Senior	N/A
Sports Grounds staff	New Recruitment programme	2.18	4.18	Will Relf	N/A
Heritage Orchard	Expand	11.18	ongoing	Rachel Senior	N/A

LONG AND SHORT TERM PROJECT PLAN

