

Manchester Science Park - Greenheys Development

Landscape Management Plan

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REVISION HISTORY

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P01	First Issue	31.01.2024

Landscape Management Plan

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1.01 INTRODUCTION

This Landscape Management Plan is to be read alongside the following BDP drawings:

- Landscape General Arrangement Plan - GRE-BDP-ZZ-XX-DR-L-00-101
- Tree Constraints Plan - GRE-BDP-ZZ-XX-DR-L-00-201
- Tree Planting Plan - GRE-BDP-ZZ-XX-DR-L-00-202
- Planting Plan - GRE-BDP-ZZ-XX-DR-L-00-203 (1 of 4)
- Planting Plan - GRE-BDP-ZZ-XX-DR-L-00-204 (1 of 4)
- Planting Plan - GRE-BDP-ZZ-XX-DR-L-00-205 (1 of 4)
- Planting Plan - GRE-BDP-ZZ-XX-DR-L-00-206 (1 of 4)
- Landscape Specification - GRE-BDP-ZZ-XX-SP-L-00001
- Tyler Grange Biodiversity Enhancement Strategy '15264_R09_Biodiversity_BP-180124'.

The personnel responsible for ongoing maintenance will be Manchester Science Park, and any sub-contractors they may employ for specific maintenance operations. Manchester Science Park should ensure that maintenance work is carried out safely and in accordance with current legislation and best practices to establish the protection and safety of the public spaces, and to establish an environment which promotes inclusiveness and accessibility to all.

2.01 LONG TERM OBJECTIVES

To execute a landscape maintenance and management strategy which encourages establishment of newly introduced plant materials as well as managing and protecting existing trees. The strategy aims to ensure the external environment of Manchester Science Park Greenheys Building is accessible and attractive for its variety of users, responding to the demands of high levels of pedestrian activity whilst promoting opportunities for biodiversity.

The Landscape Management Plan considers specific regimes in order to provide maximum Biodiversity Net Gain benefits, as required as part of the Local Authority Planning conditions. This plan encompasses advice on specific ecological enhancements and maintenance regimes which are specific for creating diversity of habitats for promoting beneficial wildlife. Tyler Grange Ecologist Consultants have provided input into the creation and maintenance of the planting, species selections and habitat opportunities for wildlife. Tyler Grange have also provided baseline assessments and biodiversity net-gain calculations for the design proposals, to determine the 'net-gain' level, which is a minimum of 10%. Further details can be seen in Tyler Grange Biodiversity Enhancement Strategy '15264_R09_Biodiversity_BP-180124'.

A degree of flexibility may be required in the Landscape Management Plan to ensure the landscape typologies are allowed to evolve in a way which maximises biodiversity and ecological value. Local microclimate, prevailing winds and soil conditions will play a part in how quickly the planting establishes, and how it will evolve over the coming years. Therefore the landscape will need to be monitored regularly, and future maintenance regimes may need to be modified, and plant replacement may need to consider alternative species if some species have not been able to adapt to growing conditions on this site. Seek advice from qualified Ecologist / Landscape Architect if necessary.

The following aims and objectives are to be noted, to maximise biodiversity value, protect ecological features and maximise opportunities for wildlife and ecology.

- A diverse range of nectar-rich species should be included in any new planting or replacement planting. Species should include natives where possible, however non-native herbaceous perennials and grasses can provide nectar sources to lengthen the flowering season, and provide cover for small mammals and birds.
- Spring bulbs added to planting and lawn areas can provide early sources of food for beneficial insects and solitary bees.
- Foliage, seed heads and spent flowers should be left in situ until late winter, to provide habitat and shelter for insects and other wildlife. Over-manicured landscapes should be avoided.
- Trees which have been felled can be cut and used as logs within appropriate areas of the campus, to provide refuge for wildlife.
- The 'Bird Nesting Season' is officially from **end February until August** (Natural England) and it is recommended that tree or hedge cutting or site clearance should be done outside of the nesting season. However, in reality the nesting period may start before this and extend beyond it, in some cases. Always seek advice from suitably qualified Ecologist if nesting birds is suspected.
- The key personnel responsible for the landscape maintenance is **Manchester Science Park**. They will be responsible for the planning and maintenance of landscape areas across the Science Park Estate. This is a combination of both in-house and external contractors to undertake work associated with ensuring the grounds are as attractive as possible.
- The green / living walls will be maintained by **'I Want Plants'** as the supplier of the green wall system. A separate Maintenance Schedule will be developed by I Want Plants in relation to this component of the scheme.
- The key personnel responsible for waste, recycling, cleaning and leaf collection is **Manchester Science Park**. They are responsible for discharging the Estate's responsibility in relation to the Environmental Protection Act 1990 (code of practice regarding litter and refuse), including various recycling initiatives employed by the University.
- *Note, Within the 12 month period after practical completion the general maintenance of hard and soft landscape may fall into the remit of the Main Contractor, Willmott Dixon, as part of a standard 'defects period'. After the defects period, the landscape must be handed over as the design was intended, and in accordance with the objectives set out within this Landscape Management Plan.*
- Monitoring of the landscape areas, green roofs and green walls should be undertaken by suitably experienced qualified horticultural, gardens and arborist staff, to be able to understand the evolution of planting schemes, and be able to make specific recommendations for improvements for ecological enhancements as well as visual amenity. These may include supplementary or replacement planting which promotes biodiversity, carrying out appropriate pruning, installing nest boxes for birds and bats on established trees, and ensuring the green roof is continuing to

flower.

- Nest boxes are proposed on the roof areas of the Greenheys building, as detailed in Tyler Grange Biodiversity Enhancement Strategy '15264_R09_Biodiversity_BP-180124'.
- Funding for the Landscape Maintenance will be allocated by **Manchester Science Park**.
- Habitat, Biodiversity and Ecological Value should be seen as key drivers for the future maintenance of the landscape. Although the development is within an urban context, the planting and trees can contribute to wider wildlife corridors and provide foot and habitat for birds, bats, small mammals and beneficial insects.

2.03

Health and Safety:

- The method of operations and working practices must provide an acceptable level of safety. Equipment should only be used in the way that it is designed to be used. Whilst consideration to the safety of the operatives is given, it is important that personnel and public are not exposed to unsafe situations as a result of the operation of the equipment.
- There are Safety Directives and legislation which have a direct role in the manner and application of access systems to building maintenance. These are continuously updated and refined together and with requirements of the CDM Regulations have significant effect on the importance of considering an appropriate access scheme.
- All equipment should be properly maintained, serviced and certified. All operatives should be appropriately trained and certified with the exception of trainees under close supervision by a qualified person. Suitable PPE must be worn, appropriate to the nature of the cleaning and maintenance operation being carried out.
- The working methods in this Management Plan are intended to be used as a guide. Manchester Science Park and any maintenance sub-contractor are to review the methodology and prepare more detailed method statements where necessary.
- Signage should be placed if strimming grass within close proximity to public paths, 'caution grass cutting in progress'. Suitable PPE should be worn, including sturdy footwear, gloves, eye and ear protection, and clothing which covers arms and legs.
- Machinery should have automatic safety cut-off mechanisms, and should not have trailing cables.
- Maintenance personnel should have a knowledge of horticulture / soft landscape species to be able to identify appropriate management techniques which enable the site to evolve and thrive in a way which promotes biodiversity and ecology.
- Treatment and use of fertilisers should prioritise organic methods, and avoid substances which could harm wildlife, people, or pollute the watercourse or soil.
- Herbicide and chemical applications should be avoided where other hand-removal methods are available, and should not be used near watercourses.
- Cleaning products: As a priority, cleaning products should be organic, mild, and not contain harsh chemicals, to maximise safety for users and for the environment. Any surplus detergent should be disposed of in a safe manner, and not discharged into drains / water courses. Any product should comply with the requirements of the **COSHH** Regulations.

3.00

LANDSCAPE COMPONENTS AND KEY OPERATIONS

3.01

Maintained Grass areas

- To be mown as required, subject to weather conditions, to maintain a closely knit, continuous ground cover sward of even density, height and colour.
- 'Refurbishment works' such as cultivating, reseeding and fertilising to occur in

March / April, and de-compaction to occur in late September / October.

- Growth and development: Maintain a healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
- Watering: As necessary in particularly hot weather to ensure the establishment and continued thriving of all seeding/turfing
- Remove arisings after cutting.
- Fertiliser application: As per manufacturer's instructions.
- Bulbs within grass areas to be allowed to die down naturally after flowering before removing leaves / mowing grass.
- Areas of sloped grass / mounding to be maintained using hand operated mowing machinery, rather than sit-on mowers, for safety purposes.

3.02

Long grass / infrequently maintained grass areas (where the cultivation of informal grass areas beneath trees is required)

- To be cut infrequently to 40-50mm sward length. Cut in early summer, after spring bulbs have died down, when sward height reaches approx. 250mm, subject to weather conditions, to maintain a continuous ground cover sward of even density, height and colour.
- 'Refurbishment works' such as cultivating, reseeding and fertilising to occur in March / April, and de-compaction to occur in late September / October.
- Growth and development: Maintain a healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
- Watering: As necessary in particularly hot weather to ensure the establishment and continued thriving of all seeding/turfing
- Remove arisings after cutting.
- Fertiliser application: As per manufacturer's instructions.
- Spring Bulbs within grass areas (ie Bluebells, Daffodils) to be allowed to die down naturally after flowering before removing leaves / mowing grass.
- Areas of sloped grass / mounding to be maintained using hand operated mowing machinery, rather than sit-on mowers, for safety purposes.

3.03

Ornamental shrubs, perennials and ornamental grasses to be maintained to promote weed suppressing ground cover, with high ornamental / biodiverse value and seasonal interest. Each species group is to be pruned or tended to promote natural form and development, maintaining healthy growth. Dead heading, removal of seasonal foliage and formative pruning to be carried out as required, though seed heads of grasses and perennials should be left in place in Autumn and Winter, to provide winter interest and to increase habitat opportunities for beneficial insects. In early spring clear away dead foliage and top up mulch with compost / composted bark as necessary to maintain a depth of 50mm, in order to suppress weeds.

Specific maintenance requirements:

- Semi-evergreen Ornamental grasses – cut down to base in early spring before new foliage appears.
- Evergreen ornamental grasses – in early spring, wearing gloves, comb through grass to remove dead foliage.
- Herbaceous perennials and deciduous shrubs – During summer, deadhead spent flowers and fading flower spikes as they fade and carry out formative pruning to maintain vigour. Shrubs growing from a central crown should be lightly pruned to a central framework in early spring to maintain the plants symmetry. Shrubs with stems growing from the base such as Dog wood (*Cornus spc.*) should be pruned hard back to the base in spring. Leave ornamental seedheads in place during winter to add structure and interest to the border.
- Evergreen perennials and shrubs – In late autumn (October / November) remove any dead flower or seed heads which are not required for interest during winter. In

spring tidy foliage by removing any damaged winter stems and lightly trim foliage of dense shrubs including *Hebe* and *Lavender*.

3.04 Bulbs

- Lift and divide congested colonies in spring, re-planting at a suitable spacing according to the individual species.
- Spring bulbs - Allow bulbs to finish flowering, remove spent flowers, but allow foliage to die back naturally before tidying up / cutting in late spring / early summer.
- Summer bulbs: ie Alliums – Leave spent flower heads for autumn interest.

3.05 Formal Hedgerows including Yew, Box, and Beech, to be maintained to create a formal healthy planted boundary through trimming twice a year, whilst the hedge is actively growing.

Yew Hedges (*Taxus baccata*) within planting beds to be maintained at a height of 600mm. Care to be taken to avoid damage to any tree trunks which may be within the centre of a double row of yew hedges.

Boundary hedges to the service yard / along Greenheys Lane are staggered in height, and should be maintained as follows: Rear tall Yew hedge (*Taxus baccata*): 150mm high. Front low box hedge (*Buxus sempervirens*): 700mm.

Year 1-2

- In August trim sides of hedge lightly to encourage bushing out. Tip any tall leaders to maintain an even height.
- For the first two years after planting, prune back only the terminals and laterals as needed to begin the desired tapered form.

Year 3-5+

- In June trim where required to encourage bushy new growth.
- In August a second trim will encourage a late flush of new leaves which will stay on the branches throughout winter.
- The top of the boundary Yew hedge should be trimmed to have a slightly tapered profile allowing sunlight to reach the lower branches
- An overall base width of 50-60cm, and a top width of 40-50cm should be maintained.
- When using powered hedge trimmer, protective gear including gloves and goggles and boots are required.
- For large leaved hedges if applicable to scheme (check planting plan / schedule) such as Laurel (*Prunus lusitanica*) use secateurs or loppers where practical to avoid unsightly leaf damage.

3.06 Native Hedge if applicable to scheme (check planting plan / schedule) to be maintained to create a dense healthy planted informal boundary through trimming once a year, whilst the hedge is actively growing.

Year 1

- Prune back growth by 1 third after planting to encourage bushy growth.

Year 2+

- In mid-late August trim side branches by 1 third. The top of the hedge should be trimmed to have a rounded or tapered profile allowing sunlight to reach the lower branches.
- An overall base width of 70-80cm and an upper width of 50-60cm should be encouraged.
- Hedges can be kept vigorous by annually thinning out a third to a fourth of the oldest branches with hand pruners or pruning saws. In addition to regular shearing, cut these branches back to the parent stem at the ground or to a lateral, or side, branch in the spring before growth starts.
- When using powered hedge trimmer, protective gear including gloves and goggles are required.

- **Avoid cutting hedge between March and August as this is the main breeding season for nesting birds.**

3.07 Existing and new trees to be managed according to the arboriculture assessment and recommendations. Newly planted trees and specimen shrubs to be monitored year round to ensure canopy form (with central leader or as a multi-stemmed), is healthy and typical of species and remains free from pest and diseases. Where necessary formative pruning to be carried out by a qualified arboriculturalist. All aspects of installation, including moisture content in rootballs, tree guys or stakes, tree ties and aeration tube caps to be inspected on a regular basis.

3.08 Bird / bat boxes can be added to trees as they reach maturation. Seek advice on location and type from a Qualified Ecologist. Additional information can be found in Tyler Grange Biodiversity Enhancement Strategy Report, 15264_R09_Biodiversity_BP_180124.

3.09 Planting, Watering and Establishment of new trees:
Trees delivered to site should be planted as soon as possible to ensure the root ball does not dry out. Plastic sheets temporarily wrapped around the rootballs can help limit evaporation. Trees should be planted in the 'dormant period' between November and March whenever possible, in particular if trees are rootballed or bare-root. Container grown trees may be planted at any time of the year, but are likely to require more manual watering to get established, and can sometimes suffer from 'transplant shock' if not handled with care when planting to ensure the roots do not dry out.

It is important that the planting hole for the tree is 2 to 3 times the tree's root spread / rootball size to provide sufficient growing volume for new roots to spread into, to avoid roots spiralling which can cause root congestion and long-term instability of the tree.

Trees should be heeled in gently, staked / guyed as detailed in the Landscape drawings / specification, and then watered well. In general, if planted during the dormant period, other than the initial watering, trees should not require additional watering, unless there are prolonged periods without rainfall (more than 1-2 weeks). Container grown trees planted during spring and summer may require manual watering to achieve successful establishment, approx. 1-2 buckets / 20 litres of water per day, if the weather is warm and there is no rainfall.

During the initial establishment period, additional manual watering may be required in warm weather or prolonged periods without rain. Watering is advised for the first 2 summers after planting, further to this trees should be able to access water from the surrounding soil.

Water should be applied to the base of the trees, evenly distributed over the entirety of the root-ball to encourage even distribution.

Organic mulches such as bark mulch will help retain moisture within the soil, and should be applied around the base of the tree to a depth of 50-70mm at the time of planting.

3.10 Fruiting trees maintenance

In winter remove any crossing, weak, dead, diseased, damaged and dying branches.

Spur-bearing varieties:

- Shorten the previous year's growth on each main branch by about one third to a bud facing in the required direction to encourage the development of new branches and spurs.
- Cut back any young laterals (sideshoots) growing from the main framework to

five or six buds if there is not enough space to allow them to grow as secondary branches.

- Remove any badly-placed shoots.
- On older trees, remove any spur systems that have become overcrowded.

Tip-bearing varieties:

- Prune the previous year's growth on each main branch and the most vigorous laterals (sideshoots) to the first strong bud. Leave unpruned laterals less than 30cm (1ft) long.
- Cut back a proportion of older fruited wood to a young shoot or leaf bud.

Trained / espalier fruit trees:

- Prune as growth slows, from Autumn into winter.
- Cut top growth to maintain the same height as the compound.
- Train laterals / horizontal branches by tying into structure (horizontal wires, fixed to compound timber screen with eyelets), using string/garden wire.
- Prune back vertical growth to 3 leaf buds from main horizontal branch (approx. 4-5 inches from main branch structure).
- Maintain short spurs of current years growth for fruiting the following year.
- Trim ends of horizontal branches only when they reach the desired length.

4.00 MAINTENANCE SCHEDULE

4.01 Short Term Maintenance Operations (Years 1-5)

4.02 This section provides a summary guidance schedule on the landscape management, detailing the annual maintenance operations required during the first five years to ensure successful establishment and development of the landscape proposals.

Operation	J	F	M	A	M	J	J	A	S	O	N	D
1. Existing Trees and Hedgerows												
- Annual safety and condition inspection										1		
- Remedial prune as required										1		
2. New Planting and Trees												
- Annual tree inspection and remedial pruning as required										1		
- Weeding and litter pick			1	2	2	2	2	2	2	1		
- Fertiliser application		1										
- Formative prune and boundary hedge trimming								1		1		
- Clipping of Decorative Hedges as required					1	1	1	1	1			
- Watering as required												
- Top up Bark Mulch to maintain 50mm depth			1									
3. Grass Areas												
- Amenity grass: Mow			1	2	3	4	4	3	2	2	1	
4. Wildflower Grassland												
- Year 1 Sward Establishment Cuts				1	1	2	2					
- Hay Cut and remove clippings								1				
- Secondary hay cuts in response to soil fertility and grass sward re-growth									1-2	1-2		
5. Paths												
- Remove litter, grass clippings and general debris	1	1	1	1	1	1	1	1	1	1	1	1
- Annual inspection for wear and tear			1									
6. Security Fences												
- Annual inspection for wear and tear									1			
Note: Numbers in columns denote recommended frequency of visits within each monthly period												

4.03 Long Term Maintenance Proposals (Year 6 onwards)

4.04 Table 2 Details long term maintenance operations aimed at ensuring the longevity of the landscape setting and enhancing ecological value of infrastructure planting

Operations Frequency

1. Existing Trees and New Trees	
- Condition and safety inspection by arboriculturalist	Annually
- Phased programme of felling and replanting based on arboriculturalist recommendations	Once every five years
2. Fruit trees	
- Pruning	Annually August - February
- Tying in branches of trained trees	Annually
3. Hedgerows	
- Clip hedgerows	Three times a year during growing season.
4. Wildflower Meadow	
- Hay cut, remove clippings	Annually in August
- Secondary hay cuts if required	Annually through August/September in response to grass growth
5. Ornamental Planting Areas	
- Inspection and remedial prune where necessary to specimen shrubs	Annually
- Replacement of plants that have exceeded their aesthetic life spans. 5-7% stock on rotational basis	Once every 5 years
6. Grass Areas	
- Mowing	Minimum of 14 cuts between April and October
- Scarify, feed and reseed as required	Annually between March and September
- Replacement of poor quality areas	Annually
7. Paths	
- Wear and tear inspection	Annually
8. Security Fencing and Gates	
- Wear and tear inspection	Annually

5.00 FACILITIES MANAGEMENT STRATEGY – CLEANING & MAINTENANCE

5.01 Paving and Timber Decking

Cleaning

- General cleaning of paving by mechanical scrubbing or scrub with a stiff brush using solvent free cleaners. Avoid mechanical equipment which sucks or which pulls the stone / sand from between the paving units.
- General cleaning of decking: Remove leaf litter and soil debris with stiff brush. Remove leaf litter caught in the expansion gaps between each board.
- Remove litter/chewing gum/graffiti/oil or petrol leaks from vehicles
- The sweeping of paths and paved surfaces will be carried out by the grounds maintenance operative around the site.
- Leaves and other plant material will be cleared from path surfaces with arisings removed off site or to on site compost facilities. Ensure that equipment that could damage the paved surfaces is not used.
- All weed killers used will be on the pre-agreed list approved by Manchester City Council, refer to additional COSHH information relating to weed killers used. Operatives to be licenced for use.
- Operate blowers/sprays to remove fallen leaves
- Use street cleaning vehicles to access site for sweeping, cleaning and litter removal
- On areas which have surface treatment only use acid free cleaning equipment.
- Frequency – Weekly

Maintenance

- Ensure condition of paving is kept at optimum level, repairing/replacing any damaged stones
- Check for protruding decking nails / screws, and signs of damage / splintering. Replace / repair as required.

- Use cutting and breaking equipment; operate a jackhammer; pour and finish bedding slurry, perform carpentry work
- Operate construction and maintenance equipment such as trucks, tractors, and skip loaders for a variety of construction and maintenance operations.
- Snow and Ice clearance will be carried out using industry approved materials and techniques and equipment that will not damage the surface finish. The materials used will also not be harmful to the interior floor finishes or to grass/plants/water.
- Algaecide will be applied to manufacturer's instructions, where paths / decking may become slippery due to algal growth.
- Frequency-6 times a year or as required

5.02 Steps

Cleaning

- General cleaning by mechanical scrubbing or a stiff brush.
- Remove litter/chewing gum/graffiti
- Operate blowers/sprays to remove fallen leaves
- Frequency Weekly

Maintenance

- Ensure condition of paving flags and nosing are kept at optimum level, repairing/replacing any damaged stones
- Frequency-6 times a year or as required

5.03 Walls

Cleaning

- General cleaning by mechanical scrubbing or a stiff brush.
- Remove litter/chewing gum/graffiti

Maintenance

- Ensure condition of stone/brick/concrete is kept at optimum level, repairing/replacing any damaged material.
- Frequency-6 times a year or as required

5.04 Tree Grilles

Cleaning

- General cleaning by mechanical scrubbing or stiff brush.
- Remove litter/chewing gum/graffiti/oil or petrol leaks from vehicles
- Operate blowers/sprays to remove fallen leaves
- Use street cleaning vehicles to access site for sweeping, cleaning and litter removal
- Frequency-Weekly

Maintenance

- Ensure condition of paving is kept at optimum level, repairing/replacing any damaged stones
- Frequency- 6 times a year or as required

5.05 Litter Bins

Cleaning

- Use pressure wash system or hand wash using clean cold water
- Remove chewing gum/graffiti by using a proprietary cleaner – free from solvents – avoid abrasive cleaners (ensure cleaner does not contain solvents which damage finish)
- Jet wash liners
- Frequency Weekly

Maintenance

- Install and replace damaged bins using matching products allowing for replacement at 10 year intervals where appropriate
- Maintain surface finish
- Lubricate hinges using a light grade lubricating oil
- Frequency 6 times a year or as required

5.06 Benches / Seat walls

Cleaning

- Use warm soapy water with sponge or soft cloth for general cleaning
- For stubborn stains use proprietary cleaner to suppliers recommendations – free from chlorine and ammonia – avoid abrasive cleaners
- On timber remove chewing gum using sharp blade working with grain; and graffiti by sanding wood
- Frequency Weekly

Maintenance

- Install and replace damaged part of benches / bench using matching products allowing for replacement at 10 year intervals where appropriate
- Maintain timber surface and metal armrests. Where damage to timber has occurred, light sanding to smooth imperfections may be required.
- Check LED Light fittings are working as intended and wires are firmly fixed in place.
- Check skateboard deterrent studs are secure.
- Frequency 6 times a year or as required.

5.07 Handrails

Cleaning

- Use warm soapy water with sponge or soft cloth for general cleaning
- For stubborn stains use proprietary cleaner to suppliers recommendations – avoid abrasive cleaners
- Remove chewing gum and graffiti using sharp blade by sanding wood
- Frequency Weekly or as otherwise required

Maintenance

- Install and replace damaged part of benches / bench
- Maintain timber surface and metal armrests
- Frequency 6 times a year or as required

5.08 Bollards / bollard lights

Cleaning

- Use a soft damp cloth with warm soapy water for general cleaning for stainless steel
- For stubborn stains use proprietary cleaner to suppliers recommendations – free from chlorine – avoid abrasive cleaners (ensure cleaner does not contain solvents which damage finishes)
- Frequency Weekly or as otherwise required
- **Note:** Do not use high pressure cleaner / saturate bollard lights with water.

Maintenance

- Install and replace damaged bollards
- Maintain and repair surface finish
- Lubricate hinges / locks using a light grade lubricating oil
- Frequency 6 times a year or as required

5.09 Cycle stands

Cleaning

- Use warm soapy water with sponge or soft cloth for general cleaning
- For stubborn stains use proprietary cleaner to suppliers recommendations – free from chlorine – avoid abrasive cleaners
- Frequency Weekly or as otherwise required

Maintenance

- Install and replace damaged stands
- Frequency 6 times a year or as required

5.10 Lighting Columns

Cleaning

- Clean using soapy water on glass, and columns – use solvent free cleaners.
- **Note:** Do not use high pressure cleaner.
- Frequency Weekly or as otherwise required

Maintenance

- Install and replace damaged elements access via aerial work platform ('cherry picker or scissor lift'). Plant to be operated by suitably qualified and competent personnel following safety briefing. Pavements may not be designed for heavy plant, concentrations of loading from wheels and outriggers to be spread over surfaces by the use of suitably stiff boards.
- Check for water penetration/check for cracks in glass or breakages in seals
- Frequency 6 times a year or as required

5.11 Drainage Gullies / rainwater outlets / slot drains

Cleaning

- Maintain catch basins and storm drains and pipes by cleaning out debris from culverts, gullies to avoid localised flooding
- Street cleaner vehicles to access site for sweeping, cleaning and litter removal
- Frequency Weekly or as otherwise required

Maintenance

- Inspection of gully trays, pipes and replacement of any damaged
- Perform emergency street, sewer, storm drain or other public service maintenance work as required
- Frequency 6 times a year or as required

5.12 Railings

Cleaning

- Use warm soapy water with sponge or soft cloth for general cleaning
- For stubborn stains use proprietary cleaner to suppliers recommendations – free from chlorine – avoid abrasive cleaners
- Frequency 6 times a year or as required

Maintenance

- Install and replace damaged bars
- Frequency 6 times a year or as required

5.13 Fencing

Maintenance

- Inspect all fencing and maintain in good working condition, repainting as required.
- Frequency 6 times a year or as required

5.14 Manhole covers

Cleaning

- Remove litter/chewing gum/graffiti/oil or petrol leaks from vehicles
- Operate blowers/sprays to remove fallen leaves
- Use street cleaning vehicles to access site for sweeping, cleaning and litter removal
- Frequency Weekly or as otherwise required

Maintenance

- Install and replace damaged covers
 - Maintain levels of granite aggregate infill
 - Frequency 6 times a year or as required
- NOTE: For additional information relating to the maintenance of drainage features, refer to DW Engineers Maintenance Schedule.

5.15 Raised Metal Planters

Cleaning

- Use warm soapy water with sponge or soft cloth for general cleaning
- Do not clean with abrasive cleaner / cloth if the raised planter is painted / powder coated, as this can scratch or chip the paint finish.
- Do not use strong chemical cleaning products.
- Timber seat coping should be cleaned as above.
- Frequency 6 times a year or as required

Maintenance

- Install and replace damaged bars
- Frequency 6 times a year or as required

Permeable Surfaces

Regular Maintenance	Frequency
Cleaning ○ Brush gently, regularly, and remove sweepings from all hard surfaces	Monthly
Occasional Tasks	Frequency
○ Permeable pavements- brush and vacuum surface once a year to prevent silt blockage and enhance design life. Brush kiln dried sand into joints (excluding areas where drain joint matting is used). ○ Resi-block paving sealant (matt finish) to be applied after sand brushing to reduce washing out of sand, and prevent staining.	Annually Every 2-3 years
Remedial Work	Frequency
○ Inspect pavement surface for loose or missing blocks. Surfacing to be locally re-laid by suitably experienced persons to a colour and pattern compatible with the original pavement.	Annually from year two onwards.

6.00 CHERRY PICKER ACCESS

6.01 During building maintenance operations, including the green walls, cherry picker access may be required.

- Access to South elevation is from Greenheys Lane via the BASE Building / Greenheys boulevard. Access to the West elevations is Greenheys Lane via the service yard. Access to the North elevation is from Pencroft Way. Access to the East elevation is from Pencroft way, providing the cherry picker vehicle is a small size.
- Plywood (or similar) boarding to be used beneath cherry picker support legs to minimize risk of paving being damaged.
- Access arrangements for cherry picker must be pre-arranged with Bruntwood / Manchester Science Park, to enable drop bollards to be lowered.
- Supervision of maintenance operations must be carried out, to ensure safety to pedestrians. Maintenance contractor to provide further details of safety procedures.
- For details of building maintenance refer to BDP Architects Access and Maintenance Strategy P3001624_REP004.