

CLARENDON ROAD PHASE 3

MAINTENANCE AND MANAGEMENT PLAN

Clarendon Phase 3

January 2020

1.0 Long Term Design Objectives

This is the third phase in the multi phase re-development of the Clarendon Road Gas works site and responds to the approved landscape masterplan objectives for the wider scheme. Blocks D1 to D4 sit on the north eastern boundary of the site, interfacing with existing residential areas to the west, Mary Neuner Road to the west, Hornsey Park to the south and Brook Road to the north.

The intention is to create a varied and interesting landscape across the site that responds to former natural habitats (Haringey woodlands) and the sites industrial heritage. Materials for this phase and future phases have been chosen for their industrial aesthetic as well as their durability. The majority of the planting relates to the former woodlands; with native trees, shrubs and shade tolerant groundcover intertwined with more ornate and colourful planting to create seasonal interest and multi-species habitats.

The majority of private soft landscape areas within phase 3 will have automatic irrigation (drip feed), ensuring plants and trees receive the correct volume of water year round. An exception will be the public landscapes between each block. These will be watered by the maintenance contractor using bib taps placed throughout the development. Rain gardens along Mary Neuner Courtyard will capture surface run-off and secured bib taps will allow for manual watering in periods of hot and dry weather.

2.0 Management Responsibilities

The intention is for St William to employ a managing agent who will be responsible for the maintenance and management of the hard and soft landscape elements across the site. The managing agent should ensure that all hard and soft elements are maintained in line with the schedule appended to this document. The managing agent should ensure that public health and safety are considered at all times and landscape areas should remain clean and free from obstacles and elements that could lead to injury or harm.

Clarendon Road Phase 3 Maintenance and Management Schedule:

Hardworks

Element	Maintenance requirements
Litter Picking (General)	Regularly remove all deleterious items, litter, fallen branches, and other rubbish, and leave in a clean and tidy state.
- Concrete Block Pavers to Pavements	Weed Control Unfortunately there is no such thing as a weed-free surface. If detritus is allowed to accumulate on a surface, it will only be a matter of time before weeds or other plants germinate. Secondly, when properly constructed, weeds do not grow through block paving. Weeds will grow into paving, by colonising the sand filled joints or settling onto accumulated detritus, but it is very rare for weeds to grow through 200mm or so of pavement structure.
- Concrete Blister Paving	Weeds can usually be pulled off the surface of most paving, or scraped off using a hoe or similar tool. Where roots have been sent down into the jointing, removal of the weed often brings away some of the sand, and this should be replaced as soon as the surface is clean. Partially-filled or empty joints are detrimental to pavement performance.
- Concrete Tactile Paving	• Regular brushing disturbs any newly emerging weeds and removes them before they can establish themselves. • Weed killers, when used with care, can be very effective at killing existing weeds and deterring re-colonisation for a period of weeks or even months.
- Concrete Kerbs	Look for products which have been specifically developed for use with paving or in gardens, rather than general herbicides which kill everything. Contact weed killers work by coming into contact with the weed and are suitable for rapid killing of simple surface weeds. A systemic weed killer takes longer to kill the weed, but it is absorbed and taken into the whole plant and not just the above-ground leaves and stems. Always follow the manufacturer’s instructions and avoid washing off into any planted areas. Power Washing When used correctly power washers can help to keep paving in good condition, but used to excess they can damage the paved area and shorten its service life. When using any form of power washer the following guidelines should be strictly adhered to: • Sweep the area with a stiff bristle brush to remove any loose material. Protect or move any vulnerable items. • The power washer should be used on a setting which is sufficient to remove the dirt without causing any further distress. A low-pressure setting is recommended. Winter De-icing salts can be used during the winter months. Rock salt can be applied to most of Marshalls’ concrete and natural stone products without risk of damage, however once the area has dried out after any thaw, you may notice some temporary discoloration caused by the salt material. Normal weathering should soon remove such discoloration. If there is concern to avoid temporary discoloration of a paved area, then other de-icing materials should be used. Joints Re-brush sand joints regularly during the first year. Continue to top up when necessary or if any pavers become loose.
- Sandstone Paving to Private Courtyard	Risk Items Do not attempt to move heavy equipment, plant or the like over the unprotected floor surface or any Structural Movement Joints, Access Covers, Service Ducts etc. without laying suitable protection (minimum 12 mm floor boarding) to protect the works and spread the loads, this must include beneath out riggers. Do not use cleaning machines or plant that have hard plastic or metal wheels as scoring or tracking will result, and edges and corners of stones will be damaged. Do not allow leakage of oils from Access Equipment or the like. Use only suitable protection on the run in areas and underneath the equipment whilst in use or stationary to prevent accidental spillage on the paving. Oil/diesel stains are virtually impossible to remove and inevitably lead to replacement stones being required. Periodic inspection of the floor is required to highlight any broken or damaged tiles. These should be made safe as soon as they are found but in any case replaced as soon as possible to ensure that they do not become trip hazards for the users of the floor and to prevent damage to adjacent tiles. Cleaning – Section 1 Marshalls Plc urges that only a competent Specialist Natural Stone Cleaning Company with a proven track record of having carried out similar works be employed. Competency of that company’s staff/employees must also be demonstrated and must be a pre-requisite of employment. They must understand the product they are cleaning together with the cleaning materials to be used. Fully detailed Safety Method Statements, including relevant Risk & CoSHH Assessments, must be obtained from the company and must be complied with at all times. Employment of a non specialist / inexperienced cleaning company lacking in stone cleaning knowledge could and probably would cause the floor to not be cleaned properly, with long term dirt being sealed in and joint damage, discolouration and damage occurring. Marshalls Plc are aware that certain cleaning agents are promoted by suppliers that purport to be suitable for use when cleaning Natural Stone; these should only be used after research into the chemical compounds of the agent by the cleaning company/consultant. Small discreet test areas must always be undertaken prior to general use. Cleaning – Section 2 The following cleaning method is generic and a site-specific methodology for cleaning the paving should be ascertained having engaged a specialist Natural Stone Cleaning Company or from engaging a specialist Natural Stone Cleaning Consultant. Marshalls Plc are not a stone cleaning company and assume materials are installed in accordance with all relevant codes of practice and the specification. Marshalls Plc would be pleased to supply the details of company’s known to them that can provide cleaning consultation services. Any spillage (food & drink etc.) on the floor is to be cleaned up immediately; the acidic nature of certain foodstuffs and beverages will lead to the stone becoming acid etched, an almost irreversible condition, if the spillage is allowed to remain. Initially, blot the area of the spillage with paper or cloth towels to remove most of the spillage; do not wipe the spillage, as this will spread it over a greater area. Then wipe the spillage with a clean cloth and warm water before drying with a clean dry cloth. If this is deemed to be unsuccessful other methods will need to be employed. The current Stone Federation of Great Britain code of practice recommends that the floors should be kept clean by regular daily brushing with a soft brush or vacuuming with a hard floor vacuum as dust and debris settling on the floor can, occasionally, cause slipperiness. Prior to washing the floor ensure that it is swept as above. The natural stone floor should be washed weekly or on an, as and when required basis, using clean warm water to which a neutral detergent has been added, in accordance with the manufacturers recommendations, which are applied with a clean cloth, mop or washer dryer machine for large areas. Remove any surplus residue and allow the stone to dry naturally. Any product used should only be used in accordance with the manufacturer’s instructions and cleaners are strongly urged to test on a discreet area prior to use.
	DO NOT USE ANY HOUSEHOLD OR COMMERCIAL CLEANING AGENTS OR CHEMICALS ON NATURAL STONE SURFACES. THIS INCLUDES ANY PRODUCTS SUCH AS BLEACH, ACIDIC CLEANING AGENTS, ABRASIVE CLEANING AGENTS, WHITE SPIRITS; OIL BASED CLEANING AGENTS AND WAXES, AND HOUSEHOLD SOAPS. Under no circumstances should additives of any sort be used during cleaning unless specifically approved by the cleaning contractor/consultant, as discolouration of stone and grout will occur if chemicals are introduced and the physical appearance of the stone could be radically changed i.e. a mixture of dull and glossy patches and streaking. If the water to be used is classified as ‘hard’ advice should be sought from the local water authority in order to ascertain a suitable water-softening agent, which must be used in order to obtain the best results. Major stains will need professional attention. Care must be taken to assess whether changes in stone appearance or defects will result from the introduced cleaning media. Inappropriate cleaning may serve to worsen a discolouration. Unless there is particularly difficult stains, whatever the cause, then vigorous, rough scrubbing should not be required. Abrasives must never be used, and domestic soap leaves a slippery scum, particularly in hard water areas. Cleaning Machinery The largest single problem relating to successful floor cleaning concerns the correct machine to use for the project. Marshalls Plc again urge that only specialist machine suppliers are interviewed in connection with the provision of machines. As with the cleaning company, only suppliers providing machines that have proven experience of being able to carry out the cleaning process without damage should be used. This criteria also refers to the type and quality of brushes, water tanks, vacuum attachments and wheels. The frequency of use must also be determined from the machine manufacturer/suppliers, however water must be changed regularly and not recycled which will result in dirty joints, and surface residue, which in time will cause the store to become slippery. Joints Grouted joints are not impervious to both footfall and cleaning damage over a period of time and it must be understood that minute grout loss is occurring all the time. By the very nature of the material it will degrade over a period of time. Overly aggressive cleaning by the machine using the wrong type of brushes or pads will accelerate a natural degradation. Grout loss is the single most obvious visual problem that can and does occur. If grout is ‘pulled out’ by the cleaning machine and water is then dispensed into the joint, then damp ‘picture framing’ will occur on the stone surface; it will dry out in time, however the longer an open joint remains so, then this will occur continuously. Any grout loss should be made good as soon as possible after discovery; all cleaning staff etc. must be encouraged to report areas of grout loss when seen. The making good is to be carried out by a person competent with grouting natural stone; materials used are to comply with those detailed in the specification of the construction detail. The new grout will be a different (new) shade to the existing joint until cleaned and trafficked to match existing joints, this may take some weeks. Great care must be taken when driving over Metal Structural Movement Joints and protection must be in place. Thermal joints where mastic has been applied is less of a problem, and should not be affected.
	Replacing Damaged Stone In the event that there is a need to replace a stone(s) then it is strongly recommended that this is carried out only by a specialist company as the position of the stone to be replaced, the size/weight of the stone to be replaced and the extent of work required will need to be properly and thoroughly assessed by an expert in this field before a Safety Method Statement can be issued. Failure to comply may lead to serious injury and/or damage to the stone. Definitions Hot Water - Of High Temperature (will cause a burning sensation to the skin) Warm Water - Having a moderate degree of heat (will not cause a burning sensation to the skin)
Coloured Permeable Asphalt to Moselle Walk footpaths	The immediate aftercare of any newly laid asphalt surface course is extremely important. Moss / algae growth on newly laid asphalt surfaces In damp or heavily shaded areas moss growth can take hold surprisingly quickly to help protect your new surface moss growth should be treated early before it takes hold. Treat affected areas with a suitable moss / algae killer as soon as possible. Avoiding damage to newly laid asphalt surfacing Newly laid tarmac is at greater risk to damage in its early life before the surface hardens over time. This risk is greater particularly in the Summer months when temperatures are at their highest. Damage can be caused by placement of heavy items on the surface. Although any damage can be repaired, often the repaired areas can be obvious and spoil the overall appearance of the surface. This damage can be avoided by the use of boards to spread any loads. Contamination of newly laid asphalt surfaces The vast majority of of asphalts will soften when contaminated with oil, petrol, diesel, paraffin, creosote etc. and the extent of the damage caused will be determined by the amount of contaminant spilled and how long it is left before being treated. It is advisable to immediately soak up any oil based spillage using sawdust, dry sand or absorbent paper and remove once the spillage has been absorbed. For small oil stains from vehicles brush the affected area using a soft broom and a soapy solution or non-solvent based cleaning agent. This will ensure that the oil can cause no long term damage to the structure of the asphalt but staining will remain. Act fast to avoid long term damage or heavy staining
Cycle stands	At each maintenance visit, undertake regular inspection for damage. Repair if possible or replace damaged cycle stands to match original specification.
Metal edging to planting beds	Ensure metal edgings are flush with proposed paving and are fixed firmly in place. Metal edgings should be straight and true and connections between steel sections should be as clean as possible. All edging interfacing with soft landscape should be fixed robustly in place with a concrete haunch or stake system depending on location and proposed loadings. If edgings become damaged or loose they should be replaced or remedial works should be carried out to remedy any problems.
Gully drains and slot drains	Inspect gully drains and slot drains on a monthly basis to ensure these are free from debris, blockages and other elements that might affect their performance and ability to deal with surface water runoff. Slot drains can be jet washed to remove debris build up. Any arising's should be removed from site by Estate management.

Handrails	Regularly inspect handrail connections both in ground and where the post and the handrail are connected. Handrails are proposed to be satin brushed stainless steel in the public domain and powder coated steel to all back of house handrails. The stainless steel handrails should remain free from scratches and corrosion. Any deep scratches to powder coated steel, treat with an anti-corrosion coating and apply touch up paint, colour match paint to existing (RAL 7022 Umbra Grey or similar approved). If any handrails are damaged, estate management should assess whether the handrails are repairable or damaged beyond repair and employ a specialist metalworker to carry out repair works, or remove and replace with new handrails.
Metal Gates/Fencing/Balustrades	Regularly inspect balustrade and fencing elements to ensure that fixings are robust and metalwork is free from damage and rust. Treat any deep scratches with an anti-corrosion coating and apply touch up paint, colour match paint to existing (RAL 7022 Umbra Grey or similar approved). If any fences are damaged, estate management should assess whether the fences are repairable or damaged beyond repair and employ a specialist metalworker to carry out repair works, or remove and replace with new panels.
Timber cladding to upstands	Regularly inspect timber upstands for damage. Light damage should be remedied through removal of any large splinters and sanding down of rough surfaces. If the timber is split or damaged beyond repair, replace entire panel. There may be an initial contrast between the existing weathered timber and the newly instated timber, but this will disappear with 2-3 months exposure to the elements. All timber is proposed to be un-treated . All screw fixings should be stainless steel. Timber is proposed to be thermo-ash or similar approved and fixed in placed using a proprietary rail system.

Softworks

Litter Picking (General)	Regularly remove all deleterious items, litter, fallen branches, and other rubbish, and leave in a clean and tidy state.
Watering (General)	Inspect the site at regular intervals and determine when watering is necessary and on so doing undertake watering if required and as necessary for the healthy establishment and continued thriving of all planting. In areas where drip feed irrigation is installed, ensure timers are adjusted seasonally to provide planting and trees with the correct volume of water. During periods of hot weather, watering regimes should be adjusted to ensure the continued health of planting. Preference is for watering to occurring the evening once temperatures have dropped and the planting is no longer in full sun.
Weed control	Beds, fence lines and hard surfaces shall be kept free from annual and perennial weeds by manual and/or chemical methods. Hand weed within planting beds between 1 March and 30 September before weeds and grasses set seed. Only proprietary brands of contact, translocated and residual herbicides to be used, and all pesticides/herbicides and the operatives using them must have the approval and conform to the latest legislation contained within Part III of the Food and Environmental protection Act and the Control of Pesticides Regulations 1986 as amended.
Trees Generally	Tree and disruptive vegetation works are to be restricted to outside of the bird nesting season (March to August inclusive). Any dead, diseased or failed tree planting is to be in line with the original planting specification and should be planted at the appropriate time of year. Tree planting should ideally be in the root ball season and outside of this time frame, replacements must be containerized.
Tree Planting	At time of planting: Install guy ropes, stakes and ties; cover with 70mm depth well-rotted organic mulch up to 1 metre around the base of the tree but not touching the trunk of the tree. At each maintenance visit during establishment: Weed and water as required; Maintain mulch at original depth; Check guy fixings, stakes and ties and adjust as necessary to avoid chafing and maintain firm support; Replace losses with original species; Prune dead, dying, crossing, rubbing and damaged branches and encourage new leader if necessary; Inspect regularly for stem wounds, pests and diseases and treat early. Once established: Remove guy fixings, stakes and ties when tree is deemed firm and self-supporting; Prune dead, dying, crossing, rubbing and damaged branches and crown thin early crowded branches when operations are easily carried out and arising's are minimal; Inspect regularly for stem wounds, pests and diseases and treat early.
Trees in free-standing planters	Follow guidance as above for 'Tree Planting'. The trees in free-standing planters should be positioned to avoid areas prone to high winds, in order to avoid wind scorching. Ensure trees do not become top heavy through annual formative pruning, in later autumn or early spring. Free-standing tree planters should have an in-built water reservoir to help maintain tree health. Trees in free standing planters should be regularly checked for moisture content and the watering regime should be altered depending on weather conditions. Take care not to over water and flood tree root ball.
Hedging	At time of planting cover planting bed around base of hedging with 70mm depth of well-rotted organic mulch, leaving 10cm (4in) collar free of mulch around any woody stem At each maintenance visit during establishment: Weed and water as required; Re-firm soil around any loose plants without compacting planting bed; Maintain mulch at original depth; Replace losses with original species. Trim annually in early spring or late winter to maintain box shape. Refer to planting plans for hedge species and locations.
Herbaceous Perennial Planting	At time of planting: cover planting bed with 70mm well-rotted organic mulch, leaving 10cm (4in) collar free of mulch around any woody stems. At each maintenance visit during establishment: Weed and water as required; Maintain any mulch at original depth, but ensure plants are not buried; Re-firm soil around any loose plants without compacting planting bed; ; Replace losses with original species Once established: where plants are placed at high densities for instant impact and where they have established well and are spreading, remove whole plants along footpath edges and re-use in gaps where these may have developed; split plants in densely covered beds and re-plant gaps as necessary; hand weed within planting beds between 1 March and 30 September before weeds and grasses set seed; remove dead foliage and flower heads as considered necessary and otherwise maintain plantings in good horticultural practice suited to individual species. Any dead, diseased or unsuccessful planting is to be replaced with the original planting based on the planting schedule. Any substitutes need to be approved by the landscape architect. All replacements should be planted at the appropriate time of year, and should be avoided in prolonged hot or cold adverse weather.
Amenity Lawn (including any earth landforms)	At each maintenance visit, remove litter and debris prior to mowing and mow regularly to develop dense, hard-wearing sward. Do not mow in periods of prolonged dry weather. Lawns and grass surrounding swales should not be cut when wet. Cut every two weeks during growing season to maintain sward to 30-50mm, as appropriate. Mowing can be relaxed from late June to encourage flowering of perennial species, with mowing resumed once the sward begins to look untidy (after 4-8 weeks). All boundaries of grass areas shall be kept tidy, and management shall extend right up to any building line, wall, fence, service marker, manhole cover, signpost or other obstruction. Cuttings may be dispersed and left evenly spread over areas, but accumulation of cuttings which might cause damage to the underlying sward shall be collected and removed. Gang mower, rotary or cylinder mowers may be used depending on location and size of area.
Bulb Planting	Any replacement bulb planting should be carried out in October and November depending on species. Care should be taken when mowing areas of lawn with bulb planting. Mow these areas once the bulb foliage has died back (turning a yellow or brown colour). This will ensure the bulb has absorbed the nutrients from the foliage to provide a good display in the following years. Bulb planting in planting beds should also not be cut back until the foliage has died back and has turned yellow or brown.