

INTRODUCTION

To sustain an attractive landscape setting to developments, for the long term benefit of occupiers, the public and biodiversity, it is essential to consider practical arrangements and make financial provision for its future management. The submission of a management plan and its implementation is often made a condition of Planning Permission or the subject of a Planning Agreement. These are commonly applied in development that has:

- 1. a significant public aspect
- 2. important habitat qualities or opportunities
- communal private spaces in larger residential development
- 4. public "Greenspace"

To achieve this, planned management and maintenance operations will be required for both "soft" planted and "hard" paved spaces. These operations may well need to change / be reviewed over time as planting matures and the needs of the building occupants evolve.

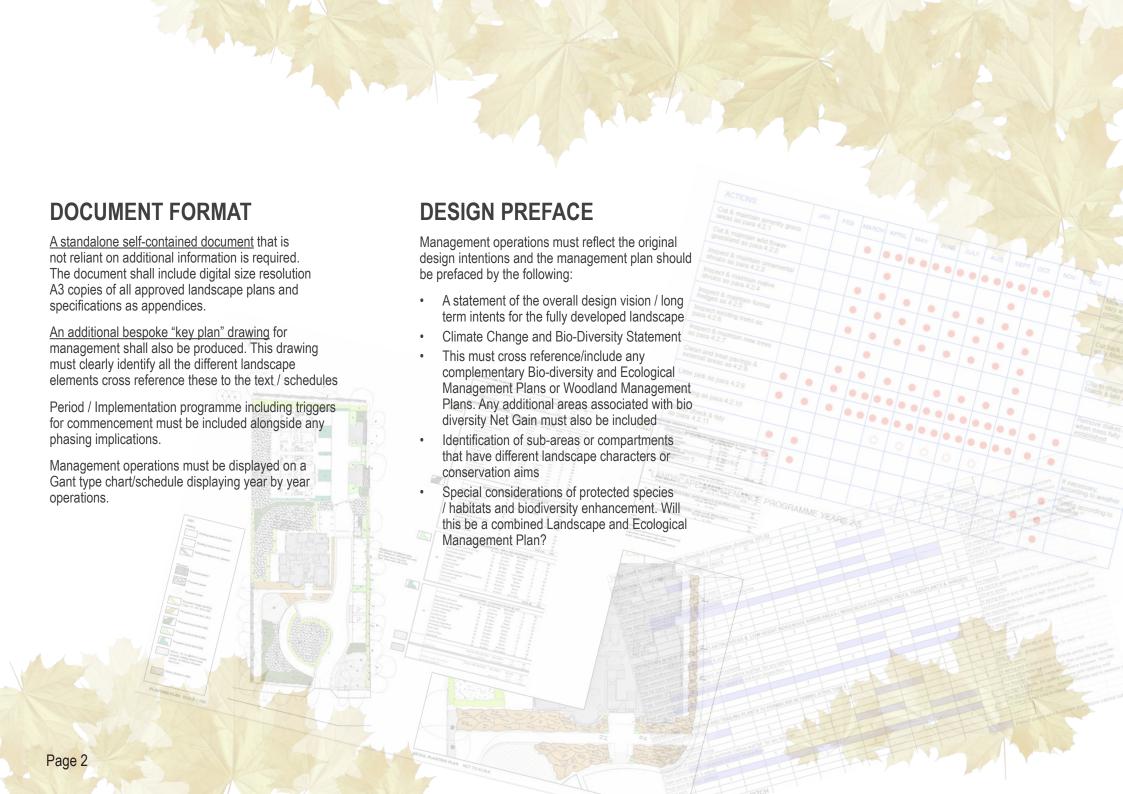
CLIMATE CHANGE - Landscape management plans have a role to play in terms of the climate change and bio-diversity emergencies.

A Climate Change and Bio-Diversity Statement is therefore required as part of any Management Plan to demonstrate how Carbon emission reductions will be achieved and bio-diversity enhanced. The statement should cover issues such as reductions in mowing frequency, reducing soil fertility and phasing out the use of chemicals and plastics. It must demonstrate how the Landscape can be "wilder" and less manicured.

Varied mowing regimes can reduce Carbon emissions, mowing frequency could be, for example, reduced to 2 cuts / year rather than the usual 10 -12 cuts / year in areas of a site that do not require close mown grass. Also mass planting of bulbs will result in mowing reductions for a number of months.

Further reductions in carbon emissions can be achieved by using renewable energy sources. Landscape Management Plans should promote the use of electric equipment over petrol or diesel power.

Management Plan Period - this shall be for the Lifetime of the Development and this must be clearly stated. Set periodical reviews should be included.



Natural play area



Play equipment

CHECKLISTS

OV	/ERVIEW - responsibilities	Applicable?
•	Distinguish between multiple land owners	
•	Status of any avenue trees and responsibilities for information with contact details. The key plan needs to clearly define the extent of the adopted highway this needs to be clearly distinguished from other areas of responsibility	
•	Maintenance/Resurfacing of main paths outside adopted areas?	
•	Public Rights of Way to identify? Responsibility and contact details	
•	Drainage responsibilities to be undertaken by LCC/ YW should be clear including contact details	
•	Easements must be clearly defined on any plans	

PLAY AREAS

- Play areas this is governed by "EN1176 Playground Equipment Standard". If a particular management company is to be appointed then their specification for maintenance must be included. The management plan must state that when any play equipment fails/reaches the end of its safe useful life then it shall be replaced with updated equipment of similar play value. Safety fencing and any gates must be maintained (see below) Conformity to EN1176 inspection requirements to be included (Part 7: Guidance for installation, inspection, maintenance and operation)
- NOTE: at the time of writing, EN1176 is the national standard governing play equipment. Should this be superseded then any new replacement standards must be followed
- Play area layout- this will need dog proof fencing and gateways in most circumstances. There is a health risk to children from dog fouling. The fenced area must not be confined to demarcation of the safe surfaced area but include a reasonable area of grass that is also safe for play and will provide informal play elements. Dog proof fencing is a requirement of the Environmental Protection Act 1990 and the European standard EN71176



Landscape view



Mandella Gardens, Leeds

НА	RD LANDSCAPED AREAS	Applicable?
•	Maintenance of boundary walls, fencing, bollards, and any temporary protective fencing e.g. post and wire /chestnut palings and trip rails and timing of removal	
•	Maintenance of hard paved and loose surfaces such as gravel. Making good damaged units or subsidence to match original materials	
•	Re-levelling of tree grilles in hard paved areas and making-up levels of infilled gravel mulches. Removal of tree guards, tree grille sections. Expanding tree grille opening to accommodate buttress growth over time	
•	Frequency of removal of litter and rubbish and response time to fly-tipping and abandoned vehicles	
•	Cleaning of stained paving surfaces by pressure washer / removal of chewing gum	
•	Repairs to walls and copings. Removal of graffiti	
•	Extension / strengthening of fencing or other barriers, consistent with existing designs	
•	Reconsideration of failed access / circulation arrangements and appropriate new paving and / or protective railings	
•	Maintenance and cleaning of degraded paint finishes, gates, railings etc	

SP	ECIAL DESIGN FEATURES	
•	Retention, operation and maintenance of water features	
•	Operation and repairs / replacement lamping of amenity and special lighting	
•	Provision of Public Art and its periodic cleaning / specialist repair	
•	Maintenance of safety apparatus and signage	



General planting



Ornamental shrubs at Golden Acre Park

PL	ANTING GENERAL	Applicable?
•	Irrigation for trees is covered by BS 8545 2014 Trees from Nursery to Independence:Trees need to be watered about twice each week with 20 L of water adequate to keep an 800 mm diameter rootball well irrigated. The tree pit for standard tree size specification (and above) must include an irrigation tube with a cap. Prescriptive details of volumes of water and frequency are therefore required	
•	Irrigation for shrubs, hedging etc- during the growing season newly planted shrubs etc. should be watered to ensure that the soil is kept constantly moist	
•	Weed controls, such as residual and spray herbicide applications and mulch reinstatement. (NOTE strimmers damage plants and should be avoided)	
•	Inspections and making good losses with replacement planting stock	
•	Firming-in and possible pruning of wind-rocked plants. Tying-in of climbing plants	
•	Maintenance of 1m diam. mulched surrounds to trees planted in grass areas	
•	Slow release fertiliser or residual herbicide applications where appropriate	
•	Extension or strengthening of fencing or other barriers where planting is becoming eroded trampled or damaged	
•	Adjustment checks of tree ties, stakes and guards, protective fencing and their timed removal	
•	Inspection for pests, vermin and plant diseases and remedial actions	
•	REMOVAL OF LITTER – all planting	

ORNAMENTAL SHRUB AREA	Applicable?
Replanting of failed stock or redesign /re-specification of failed areas	
Mulch replenishment until close cover achieved	
Formative and seasonal pruning for stem, foliage and flowering budwood	
Re-balancing of growth, removal of over-vigorous species	



Hedge and mass planting



Variation of mowing regimes

HEDGE	ES AND MASS PLANTING	Applicable?
poi rec	stinguishing between existing HEDGEROWS as retained and newly planted hedges is a critical int to address. Both need to be clearly defined and both will require very different management quirements. The landscape qualities of any Hedgerows must be retained through good anagement to retain their height and massing	
• He	edge cutting – designed heights and frequency of cut. Removal of clippings.	
• An	nual topping up of any mulch systems	
• Th	inning of mass planted vegetation where climax trees are emerging – timing year?	
	anagement of understorey and herb edges at 5 and 10 + years onward. Periodic coppicing here appropriate	
• ren	moval of "Grow Tubes"/stakes etc. unless bio -degradable tubes are used	

GR	ASS AND HERB LAYER	Applicable?
•	Re-sowing of failed areas of grass	
•	Selective herbicide treatment / feeding during establishment	
•	Aeration/thatch removal of high quality amenity lawns	
•	Frequency variations (timing and heights) should be incorporated into general grass mowing regimes to create visual interest and to encourage flowering/ bio-diversity. This would also result in a lower carbon footprint for maintenance. The different swathes must be illustrated on the bespoke "key plan" drawing for management and details clearly cross referenced	
•	Frequency, timing and heights of cut for grass/ bulb areas	
•	Appropriate cutting regimes and machinery types and design quality (e.g. cylinder / rotary / flail)	
•	Removal of litter prior to cutting	
•	Cleaning of paths after grass cutting	



Wild flower meadow

WILD FLOWER AREAS		Applicable?
•	Re-sowing of failed areas	
•	Selective WEED removal frequency and how this can be carried out in a sensitive manner	
•	Maintenance of close mown edge	
•	Frequency, timing and heights of cut for the wild flower areas. This must be in accordance with supplier's guidance. Removal of arisings is a common requirement to reduce nutrient levels in the soil	
•	Machinery types (e.g.flail) raking-off of arisings; removal from site/site dispersal	
•	Removal of litter prior to cutting	
•	Cleaning/tidying up of paths after cutting	





Veteran tree

TREES		Applicable?
Existing maturing trees		
•	Regular safety inspections and report on condition of trees by arboricultural adviser	
•	Implementation programmes of recommended tree work to comply with British Standard B.S. 3998 'Recommendations for tree work."	
•	Procedures for emergency tree work	
•	Advice on consent procedures for protected tree work (TPOs and Conservation Areas)	
•	Separate woodland management plan including bio-diversity enhancement and safety audits. Special attention to Ancient Woodland	
•	NOTE - Veteran Trees must be identified on the plan drawings. All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value and will require a very specific management techniques. You should get advice from a registered tree consultant ('arboriculturist') before carrying out work on veteran trees by contacting: - the Arboricultural Association - the Institute of Chartered Foresters Any over mature trees that are not Veteran Trees should be managed for their habitat value as standing habitats and not clear felled to ground level. Any timber should be retained on the ground for general bio-diversity enhancement	





New tree planting

TREES		Applicable?
Ne	New tree planting	
•	Irrigation in accordance BS 8545 2014 Trees from Nursery to Independence (p72)	
•	Loosening and removal of tree ties unless they are bio-degradable	
•	Topping-up of mulching systems (trees in grass must have min 1m dia bark mulch	
•	ban on use of strimmers around the base of trees (bark stripping)	
•	Formative pruning of new trees, if appropriate, including progressive crown lifting and leader selection, and minimum / maximum heights of crown lifting	
•	Planned pruning of pleached trees, mop headed pollards or coppiced trees	
•	Investigation of any failed growth of trees- remedial actions and replanting	
•	Aeration of compacted soils and use of soil inoculants-if trees become moribund (applies to existing and new trees)	
•	Replacement of failed trees (note: include Planning Conditions that may apply -usually for 5 years post implementation)	