PROPOSED RESIDENTIAL DEVELOPMENT

BENNETT STREET, MANCHESTER

25 YEAR LANDSCAPE MANAGEMENT PLAN

YD2_22_013_BS_LMR001

REV (-) FIRST ISSUE FOR PLANNING 15/03/2024

SQUARE YARD

Spaces for now, then, and everyone

Tel. > *+44 (0) 7514 281 452*
Email. > *studio@yd2.co.uk*
Web. > *www.yd2.co.uk*

SQUARE YARD

LANDSCAPE MASTERPLAN



KEY:

- PROPOSED SPECIMEN TREE AS ANNOTATED
- PROPOSED NATIVE SCRUB PLANTING
  REFER TO PLANT SCHEDULE FOR SPECIES MIX
- PROPOSED AMENITY SHRUB PLANTING
  HATCHES DENOTE SPECIES SEPARATION
- PROPOSED LAWN AREASTO BE TURFED
  CLIENT MAY OPT TO SEED LARGER AREAS
- PROPOSED WILDFLOWER MEADOW TO POS
  TO BE SEEDED WITH 'STANDARD GENERAL PURPOSE MEADOW MIX'
  MIX EM2 SUPPLIED BY 'EMORSGATE SEEDS' OR SIMILAR APPROVED
- PROPOSED SPECIES RICH AMENITY GRASS TO POS
  TO BE SEEDED WITH 'GENERAL PURPOSE MEADOW GRASS MIX'
  MIX EG1 SUPPLIED BY 'EMORSGATE SEEDS' OR SIMILAR APPROVED
- PROPOSED ORNAMENTAL HEDGES
  SPECIES AS ANNOTATED
- PROPOSED NATIVE HEDGES
  REFER TO PLANT SCHEDULE FOR SPECIES MIX
  TO BE PLANTED AT 5 PLANTS/LIN M IN A DOUBLE STAGGERED ROW

SOFT LANDSCAPE SPECIFICATION NOTES:

- ALL PLANTING/TURF AREAS TO BE PREPARED BY REMOVING ANY DETRITUS/CONSTRUCTION MATERIALS AND STONE/ROCK/BRICK GREATER THAN 40MM DIAM. AREA SHALL BE CLEARED OF WEEDS USING A TRANSLOCATED HERBICIDE AND CULTIVATED TO A DEPTH OF 300MMM. WHERE EXISTING SOIL IS POOR QUALITY TOPSOIL SHALL BE IMPORTED.
- ALL PLANTS SUPPLIED SHALL COMPLY WITH BS3936: PARTS 1 TO 10 AS RELEVANT, BS 4043 AND THE NATIONAL PLANT SPECIFICATION, PUBLISHED BY THE HORTICULTURAL TRADES ASSOCIATION.
- ALL LAWN AREAS TO BE CULTIVATED TO A DEPTH OF 150MM PRIOR TO LAYING OF TURF. IF THE EXISTING SOIL IS POOR QUALITY - TOPSOIL SHOULD BE IMPORTED.
- ALL SHRUB PLANTING AREAS TO RECEIVE A 50MM LAYER OF ORGANIC SOIL CONDITIONER (GRO CHAR OR SIMILAR APPROVED) AND BE CULTIVATED TO A DEPTH OF 300MM PRIOR TO PLANTING.
- ALL IMPORTED TOPSOIL MUST COMPLY WITH BS 3882:2015
- ALL PLANTS ARE TO RECEIVE SLOW RELEASE FERTILISER TO THE PITS. SIDES OF PITS TO BE LOOSENED PRIOR TO PLANTING.
- ALL PLANTS TO BE WELL WATERED IN AT PLANTING.
- ALL PLANTING AREAS TO BE MULCHED WITH 75MM TO 100MM DEPTH OF BARK CHIP.

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SQUARE YARD
Landscape Architecture
Urban Design
Masterplanning

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PROPOSED PLANTING SCHEDULE

LARGE STREET TREE SPECIES	GRADE	GIRTH	HEIGHT	SPECIFICATION	NUMBER OF PLANTS
Prunus 'Amanogawa'	HEAVY STANDARD	12-14CM			10
Prunus avium 'Plena'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	24
Prunus sargentii rancho	HEAVY STANDARD	12-14CM			15
Prunus 'Sunset Boulevard'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	9
Prunus 'Tai Haku'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	6
Pyrus calleryana 'Chanticleer'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	19
Liquidambar styraciflua	HEAVY STANDARD	12-14CM			5
Salix chrysocoma	HEAVY STANDARD	12-14CM			1
Sorbus aria 'Lutescens'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	14
Sorbus aucuparia 'Joseph Rock'	HEAVY STANDARD	12-14CM	450/650	2.1 CLEAR STEM MIN 5 BREAKS	9
SMALL STREET/GARDEN TREES SPECIES	**GRADE**	**GIRTH**	**HEIGHT**	**SPECIFICATION**	**NUMBER OF PLANTS**
Amelanchier canadensis	HEAVY STANDARD	12-14CM			2
Amelanchier lamarckii (multi stem)	HEAVY STANDARD	12-14CM	1.75-2.0m high	MIN 5 BREAKS	3
Amelanchier lamarckii (standard)	HEAVY STANDARD	12-14CM	1.75-2.0m high	1.5M CLEAR STEM MIN 5 BREAKS	3
Betula doorenbos	HEAVY STANDARD	12-14CM			1
Cercis canadensis 'Forest Pansy'	HEAVY STANDARD	12-14CM	1.2 - 1.5m high	1.5M CLEAR STEM MIN 5 BREAKS	3
Magnolia x soulangeana	HEAVY STANDARD	12-14CM	1.75-2.0m high	1.5M CLEAR STEM MIN 5 BREAKS	2
NATIVE TREE SPECIES	**GRADE**	**GIRTH**	**HEIGHT**	**SPECIFICATION**	
Acer campestre	HEAVY STANDARD	12-14CM	300/350	1.5M CLEAR STEM MIN 5 BREAKS	1
Betula pendula	HEAVY STANDARD	12-14CM	300/350	1.5M CLEAR STEM MIN 5 BREAKS	4
ORNAMENTAL SHRUBS					
SPECIES	**SIZE**	**ROOT CONDITION**			
Aucuba crotonifolia	3L POT	CONTAINERISED			285
Carex 'Ice Dance'	3L POT	CONTAINERISED			141
Ceanothus repens	3L POT	CONTAINERISED			421
Choisya 'Aztec Gold'	3L POT	CONTAINERISED			690
Cistus Corbariensis	3L POT	CONTAINERISED			279
Echinacea purpurea	3L POT	CONTAINERISED			6
Euonymus fortunei 'Emerald N Gold'	3L POT	CONTAINERISED			323
Geranium 'Johnson Blue'	3L POT	CONTAINERISED			21
Pieris japonica 'Little Heath'	3L POT	CONTAINERISED			727
Potentilla 'Kath Dykes'	3L POT	CONTAINERISED			319
Rudbeckia 'Goldsturm'	3L POT	CONTAINERISED			76
Skimmia japonica	3L POT	CONTAINERISED			261
Viburnum davidii	3L POT	CONTAINERISED			1312
Weigela 'Foliis Purpureis'	3L POT	CONTAINERISED			560
ORNAMENTAL HEDGE SPECIES	**SIZE**	**ROOT CONDITION**			
Fagus sylvatica	1+2 TRANSPLAT	BARE ROOT			1060
Pittosporum 'Irene Paterson'	3L POT	CONTAINERISED			1382
Buxus Sempervirens	3L POT	CONTAINERISED			629

SR NATIVE HEDGE MIX					
Total Length On Site	**Nursery Grade**	**Height**	**Total No. Plants**		
290			**1450**	**% Mix**	**No Of Plants**
Major Species					
Crataegus monogyna	Bareroot 1 + 1 Transplant	1.2-1.5m		60	870
Prunus spinosa	Bareroot 1 + 1 Transplant	1.2-1.5m		20	290
Corylus avellana	Bareroot 1 + 1 Transplant	1.2-1.5m		7.5	109
Ilex aquifolium	3L Pot	0.6-0.8m		7.5	109
Minor Species					
Prunus padus	Bareroot 1 + 1 Transplant	1.2-1.5m		2.5	36
Rosa canina	Bareroot 1 + 1 Transplant	1.2-1.5m		2.5	36

Planted at 5 plants/m in double staggered row.

SCRUB PLANTING MIX					
TOTAL AREA	**Nursery Grade**	**Height**	**TOTAL**		
270			**270**		
Planted on a 1m Grid Staggered			**%MIX**		**NUMBERS**
Alnus glutinosa	Bareroot 1 + 2 Transplant	1.2-1.5m	10	MIN 3 BREAKS, BUSHY	**27**
Ilex aquifolium	2L Pot	40/60cm	20	MIN 5 BREAKS, BUSHY	**54**
Viburnum opulus	Bareroot 1 + 2 Transplant	1.2-1.5m	15	MIN 5 BREAKS, BUSHY	**41**
Prunus spinosa	Bareroot 1 + 2 Transplant	1.2-1.5m	15	MIN 3 BREAKS, BUSHY	**41**
Corylus avellana	Bareroot 1 + 2 Transplant	1.2-1.5m	10	MIN 5 BREAKS, BUSHY	**27**
Crategus monogyna	Bareroot 1 + 2 Transplant	1.2-1.5m	25	MIN 5 BREAKS, BUSHY	**68**
Prunus avium	12-14cm Girth Heavy Standard	350/400cm	5	Standard 1.5 M Clear Stem	**14**

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LANDSCAPE MANAGEMENT PROPOSALS
MAINTENANCE SPECIFICATION

MAINTENANCE

The following specification items are to be addressed within long term landscape maintenance contract. Included are performance specifications, quality standards and some detailed operational descriptions. The landscape maintenance contractor will be required to apply his expertise in relating these to the Management Objectives above in producing annual programmes of work.
Maintenance to accord with requirements of BS 7370:1991
Duration: Carry out the operations in the following clauses from completion of planting.
Frequency of maintenance visits: Monthly during growing season.

POS General Purpose Meadow Mix Maintenance

First Year Management

1. Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings and will die before the year is out.
2. Avoid cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals.
3. Then cut, remove arisings from site and compost in Early August.
4. The young meadow can then be kept short by grazing or mowing through to the end of March of the following year.
5. Dig out any residual perennial weeds such as docks.

Management Once Established

1. In the second and subsequent years sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.
2. Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.
3. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

POS General Purpose Grass Mix

First Year Management

1. Growth and establishment of wild grasses may be slow initially, especially at low sowing rates (2-5g/m2). There will often be a flush of annual weeds from the soil in the first growing season.
2. This weed growth is easily controlled by topping or mowing.
3. Mow all plant growth (sown grasses and weeds) regularly to 40-60mm throughout the first growing season to prevent weeds smothering the slower-growing grasses.
4. Remove cuttings if dense, more frequent and regular topping will minimise the amount of toppings produced each time so they can be left to disperse.

Management Once Established

1. In the second and subsequent years grass sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland.
2. The sowing should be managed as a meadow allowing the grasses to grow tall, flower and seed from May through to July/August.
3. The grass meadow should be cut back and mowing resumed in late summer.
4. The first cut after summer should be a 'hay cut' with all arising removed from site and composted.

Grass Areas Generally

Repair of grassed areas damaged by trampling, abrasion orscalping during mowing;
Regular removal of litter and fallen leaves to maintain a neat appearance;
Cut to a neat even finish without rutting or compaction, particularly when ground is wet
Trim grass edges around the base of columns and furniture;
Sweep adjacent hard surfaces clear of cuttings and arisings.
Remove all arising from site

Trees, Hedges, Shrub & Understorey mixes and Whip planting

Watering

All planting to receive watering for at least the first 2 growingseasons.
Ensure sufficient water is applied to maintain healthy growth; taking into account published meteorological data on rainfall for any given period, in particular in periods of Spring drought (April,May & June)

Quantity:

- Trees: Heavy and extra-heavy standard trees – 10 gallons pertree per application;
- Feathered trees and whips: Wet soil to full rooting depth;
- Shrubs: Wet soil to full rooting depth

Weed control

All planting areas shall be kept clear of weed growth for the first 3 growing seasons; after 3 years, a herb layer can be allowed to return. Achieve by a combination of herbicide applications and hand-weeding/hoeing. Ensure that the methods used will cause a minimum of damage to adjacent planted areas.

- Tree and plant stems: Do not allow nylon filament rotary cutters or other mechanical tools closer than 200mm to the stem of any tree or plant. Include for strim guards around the base of each tree, height 225mm or maintain a grass & weed-free area

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around the base of each tree, min diameter 1000mm. Carry out operations close to stems using hand tools
- Herbicide application: A foliar acting translocated or contact herbicide shall be applied to emergent weeds.
- Hand weeding: Hoe and loosen the soil throughout the planting areas, taking care to avoid disturbance of roots of planted material. Remove weeds entirely, including roots. Remove the minimum of soil and minimise disturbance to plants, bulbs and mulched surfaces. On completion, rake areas to a neat condition.

Fertiliser
'Enmag' or similar approved slow release fertiliser to be spread over planted areas in accordance with manufacturer's instructions.
Carry out a single application between March and May for the first 3 years after planting;
Ensure there is a substantial buffer zone between fertilised areas and areas set aside for nature conservation to reduce the growth of unsuitable species.
Re-firming, check/tidy

General
Trees & shrubs shall be maintained in a firm position in the ground and all stakes and ties shall be checked regularly.
Particular timing of inspections: After strong winds, frost heave and other disturbances
Replace missing rabbit guards
Report any significant failures

Tree stakes and ties
Inspect all trees twice a year. Adjust fixing to suit stem growth and provide correct and uniform tension. If growth is sufficient for tree to be self-supporting, remove fixing and fill holes with lightly compacted soil.
Check stakes for looseness, breaks and decay and replace as necessary. Remove stakes and ties after 3 years establishment.

Pruning generally
Pruning to be carried out in accordance with good horticultural and arboricultural practice.
Standard: BS 7370.4, clauses 3.6.3 to 3.6.5
Agreement: Before starting work agree which trees, whips, shrub and hedges are to be pruned or removed;
Appearance: Trim individual plant appropriate to species, location and season to leave a well balanced natural shape;
Cutting: appropriate clean sharp tools. Clean cuts back to sound wood;
Disease of fungus; give notice if detected;
Do not use growth retardants, fungicides or sealant unless instructed;
Disposal of arisings: remove arisings from site

Pruning of trees
Tree work standards: to BS 3998 and Forestry and Arboriculture Training and Safety Council Safety Guidance;
During pruning protect adjacent structures, plants or trees;
Appearance: Trees to maintain a well-balanced natural appearance; remove any suckers or basal growth. Cut back level with source stem or root.
Chain saw work: operatives must hold a certificate of Competence;
Timing: Prune between leaf fall and mid winter avoiding the nesting bird season
Prunings: All prunings to be utilised in the creation and maintenance of habitat piles in un-obtrusive areas within screen planting parcels.

Thinning & pruning of young trees and whips up to 3m high
After 3 years full growing seasons, selectively thin, re-space and crown raise feathered trees and whips.
Prune between leaf fall and mid winter making sure to avoid nesting bird season.

Maintenace of Native Hedgerows
Any work to hedgerows is only to be performed outside of the bird nesting season.
Hedgerows to be trimmed no more than once every other year to encourage flowering.
Hedgerows to be laid as appropriate once established.
Detailed maintenance schedule be provide by the approved maintenance contractor for review.

Pruning of shrubs
At the end of the growing season, check all shrubs and remove all dead foliage, dead wood and broken/damaged branches and stems;
Prunings to be removed from site and disposed of at an appropriate composting station at contractors cost.

Timing: Unless otherwise specified or instructed, prune:
Shrubs flowering between March and July immediately after the flowering period;
Shrubs flowering between July and October back to old wood in winter;
All pruning works to avoid the nesting bird season.

Labour and operatives
All landscape maintenance works to be carried out by formally trained operatives with a relevant horticultural and/or landscape training background. Appropriate certification to be provided as part of maintenance contract.All works to be covered by a contractors Risk Assessment - to be supplied as part of maintenance contract.

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LANDSCAPE MANAGEMENT PROPOSALS

PROGRAMMING OF MAINTENANCE OPERATIONS

This management plan is intended to provide a basic performance specification to enable the maintenance contractor to submit for agreement a detailed three year programme of work which shall include scheduled dates for planting refurbishment and review.

The following is an indicative annual schedule of maintenance visits applicable for the first ten years of establishment. This provides a reasonable frequency of the more common operations, and a good indication of the required level of intensity of management required but is not intended to be fully comprehensive or restrictive.

The appointed Landscape Maintenance Contractor shall be required to construct a schedule of operations specifying operations and frequency using his own experience and horticultural knowledge.

The ongoing programme of maintenance work will also include proposed frequency of visits and operations detailed in the specification, i.e. pruning. It shall also include scheduled dates for:

· infrequent operations such as re-spacing of plants, pruning, topping up of mulch, replacement of plants / restocking of beds etc.

· Planting review and refurbishment

· Monitoring and review; the effectiveness of the management operations is to be closely and continually monitored and reviewed annually against this Specification and Landscape Maintenance Plan, with any resulting changes incorporated into the subsequent years' programme.

TREES PLANTED AS STANDARDS

Month	Watering	Fertiliser	Re-firming, stakes and ties
Jan			
Feb			
Mar		1 visit*	1 visit
Apr	2 visits		
May	2 visits		
June	2 visits		
July	2 visits		
Aug			
Sept			
Oct			1 visit
Nov			
Dec			

FEATHERED TREES, WHIPS, UNDERSTOREY AND SHRUB MIXES

Month	Watering	Weeding	Fertiliser	Re-firming, stakes and ties
Jan				
Feb				
Mar		1 visit	1 visit	1 visit
Apr	2 visits			
May	2 visits	1 visit		
June	2 visits			
July	2 visits	1 visit		
Aug				
Sept		1 visit		
Oct			1 visit	1 visit
Nov				
Dec				

AMENITY GRASSED AREAS

Month	Fertiliser	Mowing (Close-mown grass)
Jan		
Feb		
Mar	1 visit	2 visits
Apr		2 visits
May		2 visits
June		2 visits
July		4 visits
Aug		4 visits
Sept		4 visits
Oct	1 visit	2 visits
Nov		1 visit
Dec		

RETAINED EXISTING TREES

Month	Check of health and form
Jan	
Feb	1 visit
Mar	
Apr	
May	
June	
July	
Aug	
Sept	
Oct	
Nov	
Dec	

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LANDSCAPE MANAGEMENT PROPOSALS
RELEVANT BRITISH STANDARDS

British Standards
As well as the Horticultural Trade Association (HTA) Standards the soft landscape works should meet the following British Standards:

Topsoil handling, stripping and storage

BS ISO 15799:2022	Soil quality - guidance on ecotoxicological characterization of soils and soil materials
BS 6031:1981	Code of practice for earthworks
BS 4428:1989	Guide of practice for general landscape operations(excluding hard surfaces) AMD 6784
BS 3882:2015	Specification for topsoil

Quality of Trees and Shrubs

BS 3936-1:1992	Nursery stock specification for trees and shrubs
BS 3936-5:1985	Nursery stock specification for poplars and willows
BS 3936-10:1990	Nursery stock specification for ground cover plants

Turf

BS 3969:1998	Recommendations for turf for general purposes
BS 4428:1989	Code of practice for general landscape operations(excluding hard surfaces).

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