

STRIDE TREGLOWN
LANDSCAPE ARCHITECTURE

**LANDSCAPE
MANAGEMENT PLAN**
THAMES QUARTER
READING

NOVEMBER 2019



FILE	
151638-STL-XX-ZZ-RO-L-ZZZZ-90000	
PROJECT	
THAMES QUARTER _ READING	
CLIENT	
Watkin Jones	
STRIDE TREGLOWN JOB No.	
151638	
PREPARED BY	CHECKED BY
GAM	IC
DATE	REVISION No.
29.11.2019	P03

REVISION	
1	P01 09.08.2019
2	P02 18.08.2019
3	P03 29.11.2019
4	X
5	X
6	X

PROJECT CONTACT

ISABELLE CARTER
+441225342108
IsabelleCarter@stridetreglown.com

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LONDON
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BRISTOL
CARDIFF
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1.0

INTRODUCTION

1.0 Introduction

1.1 Project Overview

The proposed development will provide 315 much required modern Build to Rent homes in Reading inside a well-managed and attractive development. It will be an architectural focal point on the north east of the town centre and make a welcome commitment to the shift toward placing tall buildings in town centres generally. It will act as a transition building to the lower scaled building to the east. This height strategy is compliant with the Reading's policies for tall buildings and addresses the Council's strategy for the use of landmark and settings when massing development on the edge of cluster sites.

SITE LOCATION

The site is located just on the edge of the town centre and is relatively close to the River Thames. The block-shaped building is bound to the north and west by roads, to the east by existing development and to the south by a busy railway.

PROPOSED DEVELOPMENT

The development proposal comprises a new residential building. New public realm expands to the west and north of the building, to integrate the development with the surrounding setting. Further landscape zones are proposed at different levels of the building to supply amenity space for residents.

The site sits within a commercial and office based area closely located to from Reading Railway Station and a riverside open space to the east. The redevelopment of the site offers the opportunity to better connect the site with the wider area through public realm improvements.

LANDSCAPE DESIGN

Design Principles :-

- The landscape design for the site is influenced by the forms of the architecture and attempts to create spaces that are fit for purpose. Landscape elements are positioned to help guide users through the site.
- The public realm is visually prominent along the northern and western edges of the site and is more contemporary using a simple but effective palette of plants.
- For the Level 03 upwards; the outdoor spaces are designed as residential courtyards. Their character is formed by a colourful combination of raised planters with shrubs and specimen trees.
- The regularity of the grid-based form of the planting scheme in the courtyards - rows of trees in pot planters and also hedges - is balanced by the provision of more contemporary furniture that allows for flexibility of use.

2.0

**LANDSCAPE
MANAGEMENT
PLAN**

2.0 Landscape Management Plan

2.1 Overall Strategy

The landscape scheme is intended to provide an attractive and interactive environment for the residents & visitors providing calm, colourful and sensory environments for informal recreation.

2.2 Management Plan Aims

The landscape within the site should be managed in such a way to ensure its natural assets are protected. The designed landscape elements should be allowed to mature to enhance amenity values, habitat creation and ecological diversification, whilst ensuring the investment made in the new landscape is protected.

To enable the realisation of the Landscape Management Plan, this document has been prepared to give direction to the aftercare of external soft works within this site, detailing how and when specific actions are to take place for the 25+ year period outlined.

It is expected that the long term management shall be carried out for the expected design life of the proposed building to ensure its landscape character and setting is retained.

3.0

SPECIFIC REQUIREMENTS

3.0 Specific Requirements

3.1 Pesticides

All pesticides and herbicides must be approved by the relevant bodies and used in strict accordance with current legislation and any new legislation that is applicable. No pesticides should be used in play areas (hard and soft) at any time. The weed control methods should be allowed for within play areas such as hand weed removal / mechanical methods.

3.2 Weed Control

The maintenance provider shall undertake the weed control necessary to keep the site, including paved areas, in a weed free condition and only approved herbicides shall be used.

The maintenance provider whilst carrying out weed control which will ensure that any self seeded shrubs or trees that did not form part of the original landscaping scheme are removed.

3.3 Grass areas

Grass and wildflower areas to be maintained as specified herein. Grass cuttings shall be removed from site. Approved selective weed killers should be used as required.

3.4 Mulch

All mulched areas shall be monitored and topped up when required to provide 50mm of cover and maintained to that level thereafter.

3.5 Fertiliser

A yearly spring application of slow release fertiliser shall be applied to all ornamental plantings. Trees in containers are to be fertilised annually after year 3 of planting.

3.6 Watering

Trees & Shrubs
The maintenance provider will be responsible for watering trees & shrubs as appropriate to prevent loss and maintain healthy growth within newly planted areas for a period of two years. The maintenance provider will be responsible for the provision of water for this task.

The maintenance provider will be responsible, at their own cost, for the replacement of trees & shrubs that have died as a result of a lack of watering or for any other reason for failure.

3.7 Shrub Pruning

The maintenance provider will use current horticultural practices when carrying out pruning to maintain a good form and vigour which in turn will encourage bushiness. Pruning shall be carried out to maintain an attractive shrub bed and each shrub must be pruned to retain it's individual species and shape. Shrubs shall be cut back to pavement edges. Pruning shall be in the appropriate month / season to maintain flowering and fruiting.

3.8 Tree Pruning

Any routine work carried out to keep existing / established trees in good health shall conform to current British and European standards. Pruning of trees shall be to maintain good form and vigour and to ensure that any over hanging branches are not deemed to be a health and safety risk. Dead, diseased or dying branches shall be removed. Tree stakes shall be removed from those trees no longer requiring them and ground reinstated as necessary.

3.9 Ground Preparation - Trees and Shrubs

In line with BS 3882:2015 (p11), topsoil shall be spread to the following depths, with subsoil to make up the minimum overall rooting depth:

Topsoil depth	Subsoil depth	Minimum rooting depth
Planted (shrubs and perennials) areas:		
300mm	300mm	= 600mm
Trees:		
300mm	600mm	= 900mm
Wildflower:		
no topsoil	450mm	= 450mm

WATERING RATES FOR TREES & SHRUBS

PLANTING TYPE	DEFECT PERIOD - 24 MONTH DEFECT PERIOD (2 YEARS)			AFTER DEFECT PERIOD
	During initial planting	First 8 months	Following 16 months	Ongoing
TREE	120L weekly (to rootball & surround)	60Ltr x twice weekly for first 2 growing seasons (April to Oct)	40Ltr weekly	Rainfall, with 40L weekly manual watering during growing season (April to Oct)
PLANTING TYPE	DEFECT PERIOD - 12 MONTH DEFECT PERIOD			AFTER DEFECT PERIOD
	During initial planting	First 4 months	Following 8months	Ongoing
HEDGEROW	15Ltr/linear metre	15Ltr/linear metre / week	15Ltr/linear metre (during dry periods & shrub maintenance visits)	Rainfall (Manual watering during prolonged dry periods)
SHRUB	2.5Ltr	2.5Ltr/week	2.5Ltr/week (during dry periods & shrub maintenance visits)	Rainfall (Manual watering during prolonged dry periods)

Watering: All tree pits and shrub beds shall be thoroughly watered prior to application of mulch and subsequent maintained in a moist condition as per BS8545: 2014 section 11.3.

4.0

LANDSCAPE MANAGEMENT TYPES

4.0 Landscape Management Types

4.1 Landscape Objectives

To enable the realisation of the landscape strategy for this development, a series of objectives have been defined that give direction to the management of the soft landscape areas, together with time scaled actions detailing how and when specific measures are to take place.

The landscape strategy has identified the following principal objectives, which will ensure a comprehensive approach to achieve the enhancement of the existing landscape and successful integration of the proposed landscape within the site:

- 1. To provide an aesthetically pleasing and diverse landscape that is both functional and complementary throughout the year.
- 2. To provide a landscape that can be maintained to a high standard with resources that will promote a positive image to all site users and visitors.
- 3. To provide a landscape that has clear logical and safe circulation routes across the site that are accessible to all site users.
- 4. To enhance ecological diversity and create habitats which can provide for local plants and wildlife.

The first 12months of the landscape maintenance period will be implemented by the contractor. After the end of the Defects Period (first 12months), the end user / client will become responsible for the ongoing management and maintenace of the soft landscape.

4.2 Specimen Tree Planting & Trees in Planters

Specimen Tree Planting - New tree planting will:

- Create a focal points at site entrances.
- Enhance visual links and orientation of the development.
- Tie and merge the development to existing landscape within the context of the site.
- Provide diversity in planting and create attractive features throughout the seasons.
- Provide the enhanced benefit of using existing tree planting, and associated habitat benefits.

Tree Species:

Carpinus betulus	25-30cm girth
Liriodendon tulipifera	25-30cm girth
Quercus palustris 'Green Dwarf'	1m graft
Quercus robur	25-30cm girth
Quercus robur 'Fastigiata kosta'	25-30cm girth

Actions – (0-5 years)

- Ensure ground preparation is carried out in advance of planting season, which for deciduous trees is late October to late March, conifers and evergreens September/October. Note container grown plants can be planted at any time if ground and weather conditions are favourable. The planting site will have a soil texture and structure that will retain and release moisture and nutrients to the plant.
- After initial planting landscaping should be checked prior to the end of each growing season to identify any trees that need to be replaced and this should be done in the following planting season (Nov-March). Any damaged, dead, diseased or affected by vandalism or frost / severe cold weather are to be removed and replaced to the original specification. Any crossing branches are to be removed. Water regularly to ensure successful establishment as described in section 3.0.
- In subsequent years remove and replace any tree to be found to be dead, dying and diseased or affected by vandalism or frost / severe cold weather. Replacement of the trees after the two year establishment shall be deemed extra.
- At the end of year 3 give trees in containers an annual feed in spring with slow release fertiliser.
- Years 4-5 check trees for abrasions and chaffing. Trees found to be rubbing against each other; should have their crossing limbs removed, to limit the possibility of disease in the future.
- Replace bark mulch around the base of trees yearly as required to ensure the base remains weed free.
- Continue to monitor planted trees throughout the maintenance period Years 0-5, watering where essential within hot weather and checking for any other signs of stress.

Actions - (6-10years)

- Control the spread of newly emergent tree regeneration to ensure that the required landscape character is maintained.
- Monitor the condition of the trees and prune or replace those to be dying or diseased. Before replacement trees are installed verify the cause of death.

Actions - (11-25 years)

- Control the spread of newly self-seeded emergent tree regeneration to ensure that the required landscape character is maintained.
- Continue to monitor trees, any tree works should be unertaken by a qualified arboriculturalist to ensure the tree maintains a good structure and reduced risk to branch failure.
- Replant trees as required to replace any lost by vandalism, stormy weather or diseased to ensure that the required landscape character is maintained.

4.0 Landscape Management Types

4.3 Hedges

Designed Character:

New hedge planting shall :

Provide an increased enhancement to the local setting and vernacular.

- Provide a bold evergreen mass which provides both contrast and structure to the surrounding planting.

Species:

Taxus baccata 500mm

- Actions – (0-5 years)
- New hedges to have plants at 300 / 500mm centers in double staggered rows, staked and fitted with shrub guards with 50mm bark mulch surface dressing to control weed control and water evaporation from the soil.
 - Ensure the hedges are kept weed free to guarantee a high success rate of establishment of the hedge plants. Weed control either by use of contact weed killer or by manual control. (This is an on going process throughout this time band).
 - Yearly, assess tree stakes and replace any missing or damaged.
 - After initial planting, any damaged, dead, diseased or affected by vandalism or frost / severe cold weather are to be removed and replaced to the original specification. Any crossing branches are to be removed. Water regularly to ensure successful establishment.

- Actions - (6-10 years)
- Remove any tree stakes or guards still in position.
 - Any damaged, dead, diseased or affected by vandalism are to be removed and replaced to the original specification.
 - Annual cutting / trimming should be undertaken to maintain shape of the hedge (500mm high) and promote increased density to hedge structure. Hedge trimming is to be undertaken outside of bird nesting season.

- Actions - (11-25 years)
- Any damaged, dead, diseased or affected by vandalism are to be removed and replaced to the original specification.
 - Annual cutting / trimming should be undertaken to maintain shape of the hedge (500m high) and promote increased density to hedge structure. Hedge trimming is to be undertaken outside of bird nesting season.

4.4 Green Screen

Designed Character:

New climber planting shall :

- Provide an increased enhancement to the local setting and vernacular.
- Provide instant vertical greenery in a contained environment with a frame to climb provided.
- Provide a visually semi-permeable privacy screen in-situ.

Species:

Hedera helix ‘Woerner’ Pregrown

Actions - (Generally)

- Prune the hedge once or twice a year depending on desired hedge height/width, ideally in April/May and September/October. Prune only the new shoots.
- In order to make the Ivy grow more densely, allow vines to grow and do not prune initially. Then trail the new shoots through the grid. Once established resume the above pruning regime.

4.5 Topiary

Designed Character:

New topiary planting shall :

- Provide an increased enhancement to the local setting and vernacular.
- Provide intermittent but regular focal points and interesting architectural character.
- Provide a contrasting design element within more generic areas of shrub planting.

Species:

Taxus baccata 900mm spheres

- Actions - (Generally)
- Trim annually with topiary shears or hedge-cutters in early/late summer to keep specimen in shape. Suckers and unwanted branches can be removed.
 - Apply fertiliser once a year in the spring if desired, to help maintain the plant’s vigour and appearance. Mulch with ornamental gravel, bark or organic matter.
 - To rejuvenate a poorly maintained specimen, hard prune in early/mid-spring. Once it has been hard pruned, help promote new growth by feeding and mulching, and avoid drought stress in the following seasons. Depending on the species, it can take a few years for the specimen to grow back into its desired shape.

4.0 Landscape Management Types

4.5 Ornamental Shrub, Perennial and Climbers Planting

Designed Character

Dense planting of mainly ornamental shrubs and perennial plants will define planting beds and provided seasonal interest with foliage and flower types that will:

- Create variety and impact to all areas.
- Carefully screen and separate sensitive boundaries

Species:

Ground Floor

Caryopteris clandonensis ‘Heavenly Blue’
Hydrangea macrophylla ‘Bouquet Rose’
Lavandula angustifolia
Rubus tricolor
Viburnum opulus

Floor 3

Ajuga reptans
Carex morrowii
Corylus avellana ‘Contorta’
Hedera helix ‘Woerner’
Helleborus orientalis
Liriope muscari ‘Monroe White’
Olearia x haastii
Pachysandra terminalis ‘Green Carpet’
Persicaria bistorta ‘Superba’
Rhus typhina ‘Dissecta’
Rudbeckia fulgida var. deamii
Tiarella ‘Spring Symphony’
Vinca minor ‘Alba’

Floor 10

Ajuga reptans
Alchemilla mollis
Anemone tomentosa
Anemone x hybrida ‘Honorine Jobert’

Astilbe japonica ‘Deutschland’
Carex morrowii
Deschampsia cespitosa
Dicentra formosa ‘Langtrees’
Dryopteris affinis
Geranium ‘Johnson’s Blue’
Helleborus orientalis
Heuchera ‘Chocolate Ruffles’
Liriope muscari ‘Monroe White’
Olearia x haastii
Pachysandra terminalis ‘Green Carpet’
Rodgersia podophylla
Rudbeckia fulgida var. deamii
Skimmia japonica ‘Kew White’
Skimmia japonica ‘Nymans’
Skimmia japonica ‘Rubella’
Tiarella ‘Spring Symphony’
Viburnum davidii
Viburnum tinus ‘Eve Price’
Vinca major
Vinca minor ‘Alba’
Weigela florida ‘Foliis Purpureis’

Floor 11

Ajuga reptans
Liriope muscari ‘Monroe White’
Rudbeckia fulgida var. deamii
Tiarella ‘Spring Symphony’

Floor 22

Ajuga reptans
Liriope muscari ‘Monroe White’
Olearia x haastii
Pachysandra terminalis ‘Green Carpet’
Rudbeckia fulgida var. deamii
Tiarella ‘Spring Symphony’

Actions – (0-5 years)

- Ensure ground preparation is carried out in advance of planting, which for shrubs and perennials, is late October to early March and for evergreens September/October or April/May. Note container grown plants can be planted at any time if ground and weather conditions are favourable.

- After initial planting, any damaged, dead, diseased or affected by vandalism or frost / severe cold weather are to be removed and replaced to the original specification. Any crossing branches are to be removed.

- Water regularly during dry / summer periods to ensure successful establishment.

- Reapply bark mulch beneath the shrubs and perennials where required to ensure that the area remains weed free. Any weeds found should be removed by cultivation.

- Annual pruning of plants in late winter / early spring to ensure plants retain dense form and prevent encroachment onto surrounding roads or footpaths. All pruning to be carried out to standard horticultural practices.

Actions - (6 -10 years)

- Annual clipping of plants in late winter / early spring to ensure plants retain dense form and prevent encroachment onto surrounding roads or footpaths. All pruning to be carried out to standard horticultural practices.

- Shrub beds should be kept weed free by cultivation, chemical treatment and the reapplication of bark mulch where required.

- Any plants found to be failing on a yearly inspection should be removed and replaced. Replacements should only be planted when the reason for failure has been determined and remedial action taken.

Actions - (11- 25 years)

- Continue as actions as within 6 - 10 year period.

4.0 Landscape Management Types

4.7 Wildflower Grass

Designed Character:

Create informal wildflower grassland character areas that will:

- Blend different landscape plantings together, and create an attractive floral sward.
- Enhance habitat creation and aid biodiversity.

Grassland Species:

Emorsgate Seeds 'EM2 Standard General Purpose Meadow Mixture'.

To be sown at manufacturer's recommended rate. Refer to Emorsgate (<https://wildseed.co.uk/>) for further guidance.

Sowing:

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

It is essential, particularly in the first twelve months to manage the sward to aid seedling development and maintain a balanced composition from one year to the next. Wild flowers in most cases require a lower maintenance input with a more flexible approach than our traditional amenity grasslands.

Mixtures which have been established during the autumn, for example, are unlikely to require cutting until the following spring. By this time there should be a sufficiently developed sward of companion grasses. This will be growing faster than the flora content of the mixture. To reduce the grass canopy and allow established broad leaved species to develop a cut will be required. The timing of the first cut will depend mainly on the rate of growth of companion grasses.

A rule to follow can be to cut the sward once the height exceeds 10cm (late March/early April) reducing the height to between 4-7cm according to evenness of the ground. The lower the cutting height, the slower the regrowth of grasses.

A second cut could be required if re-growth exceeds 10cm by the end of April/ early May. This will be very much influenced by local growing conditions such as rainfall and ground temperatures. The greatest influence will be soil fertility.

Subsoil may not require any more than one cut in comparison to a fertile site, which may need 3-4 cuts during the first year.

Maintenance:

Unlike standard amenity grassland, the management of wild flower mixtures is more complex due to the wider range of growth characteristics between species. Factors such as rate of growth and flowering date will all influence the maintenance programme. For example, a cut at the wrong time of the year may result in a plant not producing seed.

This would result in short lived perennial and biennial species being lost from the sward. The survival of certain species relies on a return of seed into the soil to form new plants.

Actions (following guidance above) – (0-5 years)

First Year Management:

- Most sown meadow wild flower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing.
- Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wild flowers.
- Avoid cutting in the spring and early summer if the mixture has been sown with a nurse cover of cornfield annuals, or is autumn sown and contains Yellow Rattle. These sown annuals should be allowed to flower, then in mid-summer cut back and the cut vegetation removed. It is important to cut back cornfield annuals before they die back, set seed or collapse: this cut will reveal the developing meadow mixture and give it the space it needs to develop.
- Carefully dig out or spot treat any residual perennial weeds such as docks.

Management once established:

- In the second and subsequent years EM2 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.
- Meadow grassland is not cut 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 scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.
- Mow the re-growth through to late autumn/ winter to c 50mm and again in spring if needed.
- Suitable selective weed killers could be used as required to spot treat and remove any invasive weed species.
- Any compaction within establishing grassland should be spiked as required, using current standard horticultural practices.

Actions Year 6 onwards:

- Wildflower and annual grass species can become suppressed by dominant grasses. Monitoring of wildflower areas with the lack of diverse species can be rejuvenated with cultivation and re-seeding.
- Any newly sown areas of Wildflower would restart the actions listed above.

5.0

SOFT LANDSCAPE REFERENCES

5.0 Landscape Drawing References

5.1 Refer to the following Stride Treglown drawings for further information

151638_09000-09005_Landscape General Arrangement Plans

151638_09140_Soft Landscape Works Plan Ground Floor 3

151638_09140_Soft Landscape Works Plan Floor 10

151638_09140_Soft Landscape Works Plan Floor 11

151638_09140_Soft Landscape Works Plan Floor 12

151638_09140_Soft Landscape Works Plan Floor 22

151638_09400_Typical Tree Pit in Soft Landscape

151638_09401_Tree Within Planter

