

# Landscape Design Report,

St Mochtas LRD,

May 2025



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## 1.0 INTRODUCTION

Doyle + O'Troithigh Landscape Architecture Ltd, were appointed as part of the project team for the St Mochtas LRD Residential Development, to prepare the landscape design proposal in association with the Project Architect, O'Mahony Pike, and Project Engineers Waterman Moylan.

Doyle + O'Troithigh Landscape Architecture Ltd are a landscape architectural firm with a collective experience over 30 years. A principle of our design is the development of positive open spaces.

### 1.1 Landscape Design Intent, The design of positive open space

The Public spaces between buildings influences both the built form and the civic quality of the development. A balanced approach to the design of the public space centred on the relationship between the buildings and their surrounding open space areas, will allow for the design, development and management of a public realm which can be used for a variety of amenities throughout the year; in doing so, adding to the civic quality of life of the future end users.

The design of public open space must be 'open minded', in that it does not try to define specific activities but can accommodate a range of them. Whether large or small, good open space is human in scale. The open space associated with the development cannot be considered as an Island as it will flow and connect in the open space and public realm of the adjoining developments.

Therefore, the design and layout of the open spaces must be considered and connect visually and physically with the neighbouring site lands.

Research undertaken for the UK's Commissions for Architecture and the Built Environment has shown that good quality public open space makes a tangible difference to people's lives.

Landscape design objectives include:

- Manipulating the external environment to enhance the outdoor experience for all residents.
- Working with the site settings, considering the influence of the elements and positioning amenity areas with the sun in mind will allow us to add value to the landscape.
- Providing external areas which can be used all year-round, adding value to the development, and more importantly acting in a positive way toward the creation of a community spirit and sense of ownership.
- Enhancing the biodiversity and ecological value of the site.

Key considerations during the landscape design process include:

- Topography,
- Aspect,
- Wildlife and ecology (Urban Forestry)
- Open space networks, connectivity, and legibility (Making connections),

- The development of landmarks, focal points, vistas, and
- Management post construction.

### Landscape Design Approach

Prior to commencing the design of the public realm and following a site visit Doyle + O'Troithigh established a set of core principles to give structure and guidance to the design intent. The principles are:

- Permeability, with connection to the surrounding built environment and to the wider future development (see the green infrastructure plan for details),
- The development of a strong central open space which will develop as a focal point for residents,
- A coherent design which physically and visually connects the open space to the built development,
- The provision of a strong visual landscape which provides year-round interest,
- The development of communal amenity areas which can cater for passive and active recreation for all abilities and age groups,
- The creation of 'green streets' and strong landscape buffer areas between the public and private realm.

### Design Requirements.

The designed landscape must be comfortable, passively supervised, accessible, welcoming, sheltered, and safe. The provision of passive and active recreation within the open space must also provide a high level of visual amenity while allowing for a seamless connection to the external public realm and wider local amenity areas.

The provision of permeability and improved overall pedestrian and cyclist's movement is one of the core principles of the site layout design. This principle is coupled with the design objective to provide landscape amenity areas which offer comfort, passive supervision, ease of access and a safe amenity space for all end users.

As part of the design process we have developed of a palette of materials for both hard and soft landscaping to both the amenity lands and the streetscape. To aid us during the process to select materials we have developed a simple check list of both hard and soft landscape materials.

Hard works materials must:

- Allow for ease of movement for all users
- Enhance the space and not conflict with the building finishes
- Work and look attractive in both wet and dry conditions
- Have a long timeline appeal with a low maintenance requirement

Soft works plant materials must:

- Be suitable for the Irish climate
- Be non-invasive
- Collectively provide visual interest all year round
- Enhance biodiversity and habitat creation
- Be disease resistant

By approaching the overall landscape design of the scheme at both macro and micro levels, the scheme delivered will provide a high level of amenity. Consideration will be given to the provision of a workable, aesthetically appealing, and robust scheme upon completion.

#### Hard landscape elements

The surface finish throughout the development will work with the proposed building finish to provide a high-end public realm, with a visual consistency across the entire site area, in doing so knitting the external landscape areas together to develop an address for the developed lands.

#### Soft landscape elements

The plant material for the proposed development have will be chosen based on their long-term suitability and aesthetic appeal. We have categorised the site planting into the following key areas and types:

- Feature Trees within public open space,
- Smaller trees more suited to limited space/constrained planting zones (including over podiums),
- Street trees (columnar/ fastigate in form),
- Hedging,
- Ornamental shrub planting,
- Ornamental herbaceous planting,
- Bulb planting.

The key planting elements for the site can be largely broken down into the above plant categories. A full list and selected images of the planting mix are detailed in the planting palette submitted as part of the landscape application pack.

## 2.0 PERFORMANCE

The landscape design post construction will provide year-round visual interest, accessibility and useability, providing the residents with the opportunity to develop a heightened experience of nature within the development. The completed landscape will be functional, comfortable, and distinct to the development.

## 3.0 WHOLE LIFE DESIGN

The landscape design to each site area will cater for the needs of all various age profiles. The open-minded nature of the design provided will not limit use of the open spaces because of age, gender, or ability, and has been designed to develop clear and defined boundaries between the private, communal,

and public open space, boundaries which have been absorbed into the design to allow for a seamless visual landscape.

## 4.0 DURABILITY

A long-term focus on improving health benefits with the introduction of formal and informal play has been considered from the outset. The linear park to the eastern site boundary will include the provision of a series of amenity green areas with pedestrian connections from this linear park to the surrounding residential blocks and on to the wider site environs have informed the outline landscape design layout.



Fig 1+2. Active and passive recreation areas.

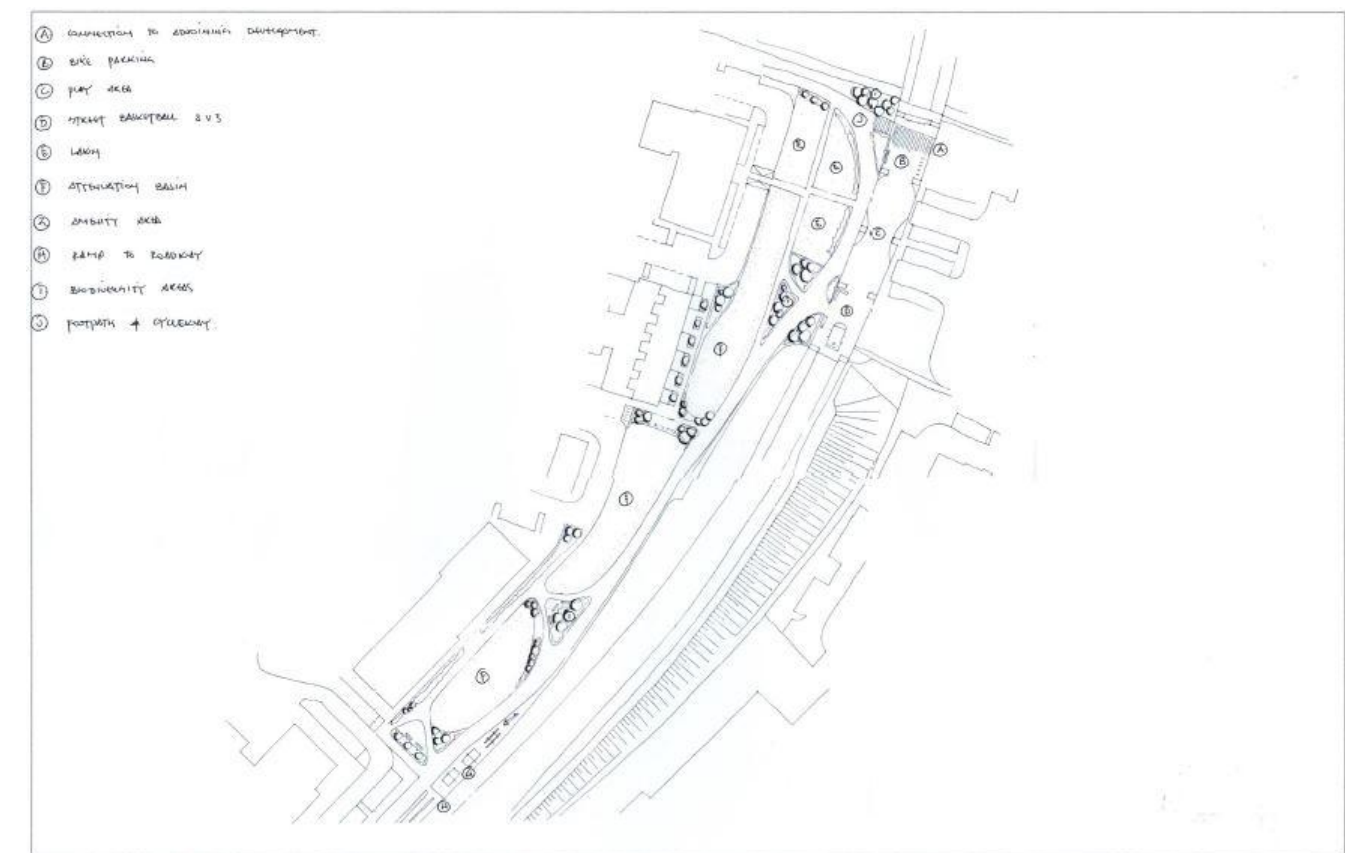


Fig 3. Early sketch proposal of the linear park open space.



Working with the topography to enhance the landscape proposed is considered key, and about establishing focal points within the public open space for active and passive recreation and developing meeting points to help social interactions and develop communities.

The open space has been designed to address envisaged desire lines ensuring a cohesive design is adopted which will cater for all ages and abilities of end users and those within the wider community. The central open space will feature a small informal playground and will include a series of terraced landscape areas for formal and informal play which can function for a range of amenity opportunities.

## 5.0 SUDS ATTENUATION, through Sustainable Urban Drainage Systems.

As part of the design and development of the open space areas, the development of a sustainable urban drainage systems (SUDS) has been included in the public open space.

The primary SUDS proposals are the attenuation basins, beneath which a Stormtech attenuation system will be installed, this will assist insuring that surface water in heavy rainfall events drains quickly from the detention basins ensuring that they are accessible and useable as informal play and passive recreational features year-round.

Working with the Project Engineers these have been positioned and fashioned in the public open space to provide areas of active amenity, as sunken lawns which can accommodate small scale ball games. Similar basins were developed as part of the St Joseph's Phase 1 development in Clonsilla. **See Fig. 4+5** below for reference.

These sunken lawns have the potential to become 'Arenas' for children to play games, with the sloped sides acting as 'stands' for friends, teammates and parents to look on as the games are played.



**Fig 4 + 5. Attenuation Basin at St Joseph's Phase 1 Clonsilla (Proposed for Taking in Charge by Fingal County Council.). Developed by Castlethorn, designed by Doyle & O'Troithigh.**

## 6.0 KEY LANDSCAPE DESIGN AREAS.

### 6.1 Public Open Space

The linear park to the Eastern boundary of the site development lands has been designed as the primary area of public open space. The park design has been informed by surface SUDS measures, connections with adjoining developments and the continuation of the pedestrian and cycle way from the Block A development. The designed park is a series of pockets of four open space lawn areas which provide potential for passive and active recreation for the residents. These pockets are framed by small areas of woodland planting into which social seating spaces have been developed. These social spaces provide direct supervision to each lawn pocket with the surrounding pathway network and residential units providing passive supervision to each lawn pocket.



**Fig 5 + 6. Proposed amenity to the Public Open Space. Ping pong tables, active amenity lawn areas and pockets of woodland planting.**

The four lawn pockets include two which are sunken to accommodate surface water attenuation these as detailed in section 5.0 have the potential to become 'Arenas' for ball games were 'jumpers for goal posts' allow children copy the heroics of their favourite teams and players. The sloped sides also help contain the ball in the 'Arena'.



**Fig 7 + 8. Connecting paths and the current Landscape site plan for the public open space.**



## 6.2 Dr Troy Bridge Underpass

The use of the dead space beneath the Dr Troy bridge overpass is important to the development of the site lands and to the enhancement of a space which if not developed as part of this scheme could remain unemployed and vacant.

The use of this vacant ground as an amenity area will provide an area of active recreation which is protected from the elements yet open to passive supervision. The proposal is for the development of the underpass ground plane into three distinct areas.

### Area 1, A street basketball court for all age groups,



**Fig 9 + 10. Street Basketball to Dr Troy Bridge underpass.**

The popularity of street basketball in urban areas and the rise of 3 v 3 basketball has seen the need for courts increase. Basketball has recently been reported as the fourth most popular sport nationwide with a significant rise in popularity in urban areas. Basketball Ireland the national governing body for the sport has over 200 clubs and 30,000 members, with over 800 schools playing competitive basketball.

The ability to provide a court as part of the underpass amenity provision allows for the development of a street court within a safe and sheltered environment which is supervised. This will provide the residents with a year-round interest, giving much needed outdoor amenity in the shoulder and winter seasons. Street basketball is a socially led game with the spectator being as much a part of the game as the player. The provided court will also include seating areas, encouraging spectator involvement in the games.

### Area 2. A formal play area for children agreed 4-12,



**Fig 11 + 12. Proposed Play equipment to formal play area, to Dr. Troy bridge underpass.**

The proposed play equipment will cater for all children with the inclusion of play items which are inclusive to all children. The play area will be finished in a tiger mulch safety surface with seating set around the perimeter of the play area.



**Fig 13+14. Proposed Play equipment to formal play area, to Dr. Troy bridge underpass.**

The design of the open space to the west of the underpass coupled with the height of the bridge ensure that this play area is open in nature while being protected from the elements, there are clear lines of sight from the proposed development and the existing Riverwood development into the underpass ensuring that the play area is supervised.

#### **Note:**

**In line with the Fingal County Council Development Plan, the play area is set 25+ mtrs from the proposed residential units and is 25+mtrs from the existing Riverwood residential units.**





**Fig 15+16. Tiger Mulch safety surface and ground level play amenity.**

### **Area 3, a climbing wall for young teens.**

With the ever-growing popularity of climbing walls in the Dublin Area the inclusion of a small-scale climbing wall at the northern end of the underpass provides an emerging amenity for the residents in a safe, supervised and sheltered space.



**Fig 17,18 +19. Small scale climbing wall for young teens.**

The surface to the base of the wall will be a safety surface the depths of which will be determined by the critical fall height from the wall to ensure that a safe surface is provided to the base of the wall for the users.

Along with the provision of these active areas of recreation the space will also accommodate seating areas, bike parking and a direct connection to the neighbouring Riverwood development.

### **6.3 Communal Open Space**

The communal open spaces provided as part of the Apartment Blocks have been designed as garden spaces with the focus on passive recreation and the development of areas of landscape which reflect private garden design and use.

These pockets of landscape act both as social connection points and recreational spaces for the residents.

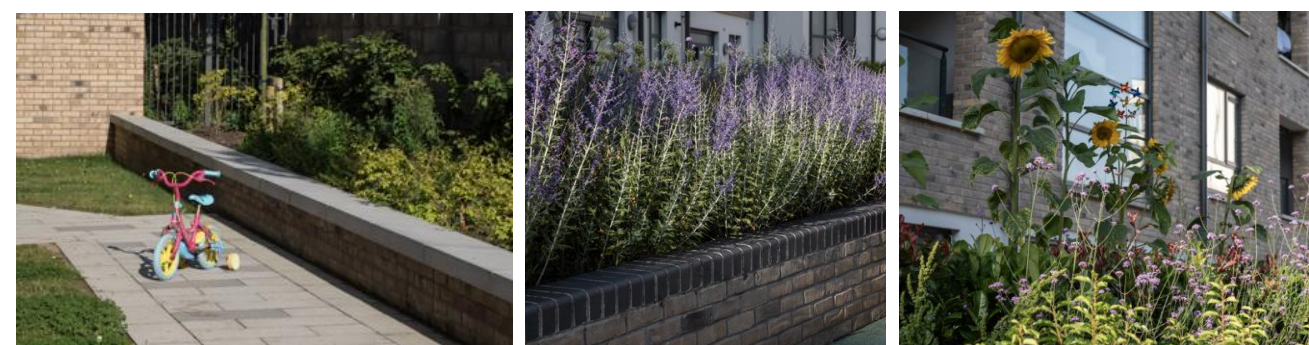


**Fig 20+21. Social space and colourful buffer planting to private terraces.**

To provide a more garden type feel to the overall design the planting to the communal open space is more colourful and ornate in nature than that to the public open space.



**Fig 22. Colourful Planting to communal open space.**



**Fig 23,24+25. Communal open space 'Garden feel'.**

Within the larger communal open space areas small scale play areas with non-moving items of play will be installed.





**Fig 26. Low impact, non-moving parts play area to communal open spaces. developed by Castlethorn, designed by Doyle & O'Troithigh.**

#### 6.4 Streetscape

All streets across the development have been designed to include islands of planting and tree planting set regularly across the street carparking. With larger pools of pollinator planting to create area of biodiversity across the site to encourage and develop a green infrastructure network, connecting the site internally and to the wider environment.



**Fig 27+28. Planting pockets and street tree planting, developed by Castlethorn, designed by Doyle & O'Troithigh.**  
**Fig 7. Seating area / social space.**

#### 7.0 SITE LIGHTING

As part of the planning application a site wide lighting layout will be developed and submitted. The design of the landscape will be informed by the site lighting. Working with the project M+E Engineers taking

into consideration the Forest of Fingal Guidelines the landscape design and site lighting will be coordinated to safeguard that the required lux levels are delivered in a manner which works with the proposed site wide tree planting to deliver a considered and safe landscape.

As part of the review of the lighting layout with the M+E Engineers the lighting design will be optimised to provide dark open space areas. These areas are more environmentally friendly to animals in particular foraging bats.

#### 8.0 TRANSPORTATION HUB

The 2021 Kellystown LAP provides for the 'possibility that a portion of the land at the extreme north-eastern part of the site (next to Diswellstown Road) may be the location of a future train station and/or future Metro West transport node'.

In line with this, Fig 29. below illustrates the outline for the landscaped linear park with Fig 30. illustrating how the northern part of the linear park could accommodate the necessary public plaza associated with a Future Train Station and /or Metro West Transport Node.





Fig 29. Outline landscape design for the eastern linear park.



Fig 30. Outline design for public realm to the north eastern area of the linear park associated with a Future Train Station and /or Metro West Transport Node.



Fig 31+32. Reference Images of the potential public realm associated with a Future Train Station and /or Metro West Transport Node.

## 9.0 ECOLOGY, BIODIVERSITY AND EDUCATION.

The central design principle for the public realm has been the design of positive open space and the development of amenity both passive and active for all residents and the wider community. Coupled with this is the development of landscapes which promote ecology and biodiversity through a series of measures including:

- Appropriate plant selections, including a focus on native and flowering species
- The development of tree and understorey planting with a native 'element' to develop habitats for wildlife
- Outward connections to promote and enhance wildlife corridors.



Fig 33+34. Examples of front boundary planting to public pathway and streetscape areas.



Fig 35+36. Seasonal colour with a 'backbone' of an evergreen hedge.

In tandem with the promotion of ecology and biodiversity, we are also proposing the promotion of nature through education. This will be done by adding name tags to selected shrub, hedge, and tree species, including information signs and notice boards to highlight the benefit of the ecology and biodiversity and how correct plant selection can promote wildlife.

These small but informative measures will be located in the linear park at relevant points on pathways, allowing residents to walk these pathways and learn to identify the surrounding planting.



Fig 37+38. Ecology rich wild flower meadows.



## 10.0 PLANTING

### 10.1 Feature trees within public open space

The trees in the central open space have been selected to create a visually appealing mix of specimens. The trees here are largely a mix of deciduous and evergreen and are positioned as informal grouping, either in mix species groupings or as single species.

Some of the species proposed include *Betula utilis* 'Jacquemontii', *Pinus sylvestris*, *Betula pubescens*, *Fagus sylvatica*, *Liquidamber styraciflua* and *Castanea sativa* as referenced below.

These specimen trees are suitably placed within the scheme where they are grown in accordance with their shape and form and overall structure. The species are largely deciduous however some feature evergreen trees will offer greater 'depth' to the scheme particularly during the winter months. It would be envisaged that over the course of a 10-year period post planting, the tree stand would vary in height between 10-14m tall and would develop further in accordance with their species and site conditions thereafter.

### 10.2 Smaller trees more suited to limited space/constrained planting zones

Where space is more limited, smaller trees have been proposed which will offer visual appeal, year-round interest and 'companion' relationship with nearby tree and shrub planting. These trees are considered more 'delicate' in nature and offer wonderful flowering; however, they are sufficiently robust to ensure they are suited to site conditions and aspect. Some of the species proposed include *Syringa vulgaris*, *Amelanchier lamarkii*, *Hamamelis mollis* and *Cercis siliquastrum*.

The above tree species all noted above are deciduous and offer 'flower' from the period of late winter through to mid-summer. These species would grow to some 2.5-4.0m in height over the course of some 10 years; and would not grow much taller thereafter.

### 10.3 Street trees (columnar/ fastigate in form)

Specific trees have been selected for the formal streetscapes within the scheme. These are all fastigate or upright in form with a narrow canopy to avoid interference with landscape elements such as lighting, vehicular infrastructure, and the built environment. The species selected are considered 'tried and tested' in terms of streetscape design; however, they have also been selected for their seasonal interest.

Some of the species proposed include *Carpinus betulus* 'Frans Fontaine', *Quercus robur fastigiata* 'Koster', *Pyrus calleryana* 'Chanticleer' and *Fagus sylvatica* 'Dawyk's Gold'.

All the above species noted are deciduous in nature; and after a period of some 10 years post planting, these would grow to a height of 6-7.5m tall. The period would be considered the most active growth period; and whilst they would grow taller after this period it would however be at a slower rate.

### 10.4 Hedging

Hedging throughout the scheme will aim to define spaces which offer capacity for varying functions, create a backdrop to seating zones, edge pedestrian walkways and help define the boundary / buffer zone between the public and private realm. Every effort has been made to include hedgerows with a

native element to improve the sites biodiversity. The delivery of visual appeal is also important to achieve this we are also utilising ornamental 'garden' species.

Some of the species proposed include *Carpinus betulus*, *Escallonia* 'Apple Blossom' and *Prunus rotundifolia*. The latter two species listed are evergreen in nature and offer a strong and formal hedge and would be maintained a height of 1.0-1.2m in height. The Hornbeam hedge (*Carpinus betulus*) is a deciduous hedge, however as the hedge creates continual juvenile foliage it tends to hold onto a large element of its leaves during winter which are brown in colour and offer good texture and seasonal interest.

The native hedgerow mixes proposed for the scheme include *Corylus avellana*, *Carpinus betulus*, *Crataegus monogyna*, *Euonymus europaeus*, *Ilex aquifolium* and *Prunus spinosa*.

This native hedgerow is largely deciduous in nature, apart from the Holly, and offers excellent seasonal interest in the form of changing bark colour, autumn leaf colour, berries of varying hues and flower. The hedgerow would be maintained at a height of some 1.2-1.75m depending on location. At boundary edges, the hedgerow could grow slightly taller and have a looser form; however, where they define more formal spaces they can be retained at a lower height and retained more compact in form.

### 10.5 Ornamental shrub planting

Ornamental shrub planting is proposed throughout the scheme both within public, private and semi-private spaces. The shrubs have been selected for their ability to create form to spaces as well as providing seasonal variation, movement, scent, and colour throughout the scheme. It is envisaged that the shrubs will be a mix of evergreen and deciduous which will be complementary as part of companion planting arrangements. It is envisaged that shrub planting would not be taller than 900mm. An evergreen 'structure' will be present in all planting zones to allow the scheme to carry through the winter months.

### 10.6 Ornamental herbaceous planting

The herbaceous planting proposed for the scheme has been chosen for its robustness, ease of maintenance, movement' and visual appeal. These species shall be largely block planted in a single species and shall be edged with evergreen shrubs to ensure the planted structure is maintained throughout the winter period. Ornamental grasses have been included to create movement and appeal to a variety of the senses. Largely ornamental shrub planting is cut back each spring to allow for new growth; underplanting of ornamental bulb planting has been proposed in connection with herbaceous planting to offer added interest during the season.

### 10.7 Bulb planting

Bulb planting shall be proposed for across the scheme where the planting of bulbs will be in the form of naturalised bulb planting within grass zones or as companion planting to mixed herbaceous species. Some of the species selected include *Tulipa* 'Triumphator' and *Allium hollandium* 'Purple Sensation'.





**Fig 39+40. Bulb planting, providing spring interest.**

## **11.0 Maintenance**

The regular care and maintenance of any area of landscape has a profound effect on its appearance, its value as an amenity, its quality of ecology and biodiversity and, in the longer term, its plant structure and overall nature.

The right levels of maintenance, and the methods to be used, will vary considerably from site to site as well as being influenced by the layout and desired end use of the open space areas, the maintenance required will also reflect the soil types, topography, exposure to the elements and local climatic variations.

Matching the maintenance regimes to the needs of a site is a major part of landscape management and it is not possible to give any absolute prescription or standard specification that can be applied for a particular type of landscape. Therefore, as part of the planning submission a maintenance regime will be prepared and submitted for all landscape areas.



