Royal Liver Phase 2

Landscape Architecture Design Report - Planning - September 2026

Report Details

Project Title: Royal Liver Phase 2

Client: LDA

Project Code: LNAA007

BIM Code: PRL-MAS-ZZ-XX-RP-L-0001

Version/ Issue Date: 09/09/2026

Author: Finian McCarthy

Checked By: Feargus McGarvey

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Introduction

Phase 2 Landscape Introduction

The landscape design is a continuation of the masterplan scheme that follows the Phase 1 and Block E1 planning amendment schemes. It is aimed at creating a sense of place, supporting the urban design layout in the creation of streetscapes, completing the civic plaza, and residential amenity courtyards and roof gardens. The modifications to the built form result in a new ground level extension to the public realm cutting through to the Naas Rd, and the relocation of the crèche and associated crèche garden, and subsequent amendments to podium and roof level communal open space.

The design is informed by the Naas Rd LAP 2013. Other design criteria are the interface with perimeter large scale road corridors – the Naas Road to the south, and Kylemore Road to the east, as well as the Old Naas Road to the north.

The existing trees have been surveyed, and reviewed in the context of the significant changes to the urban environment in the proposed scheme and its build-ability. The context is of relatively young trees in the existing car park, and the uneven and low value, poor quality screening trees to the south. The southern trees are in DCC ownership, and in consultation with the DCC Parks and Landscape Services Dept. it is considered appropriate to introduce a new comprehensive tree planting scheme for the development.

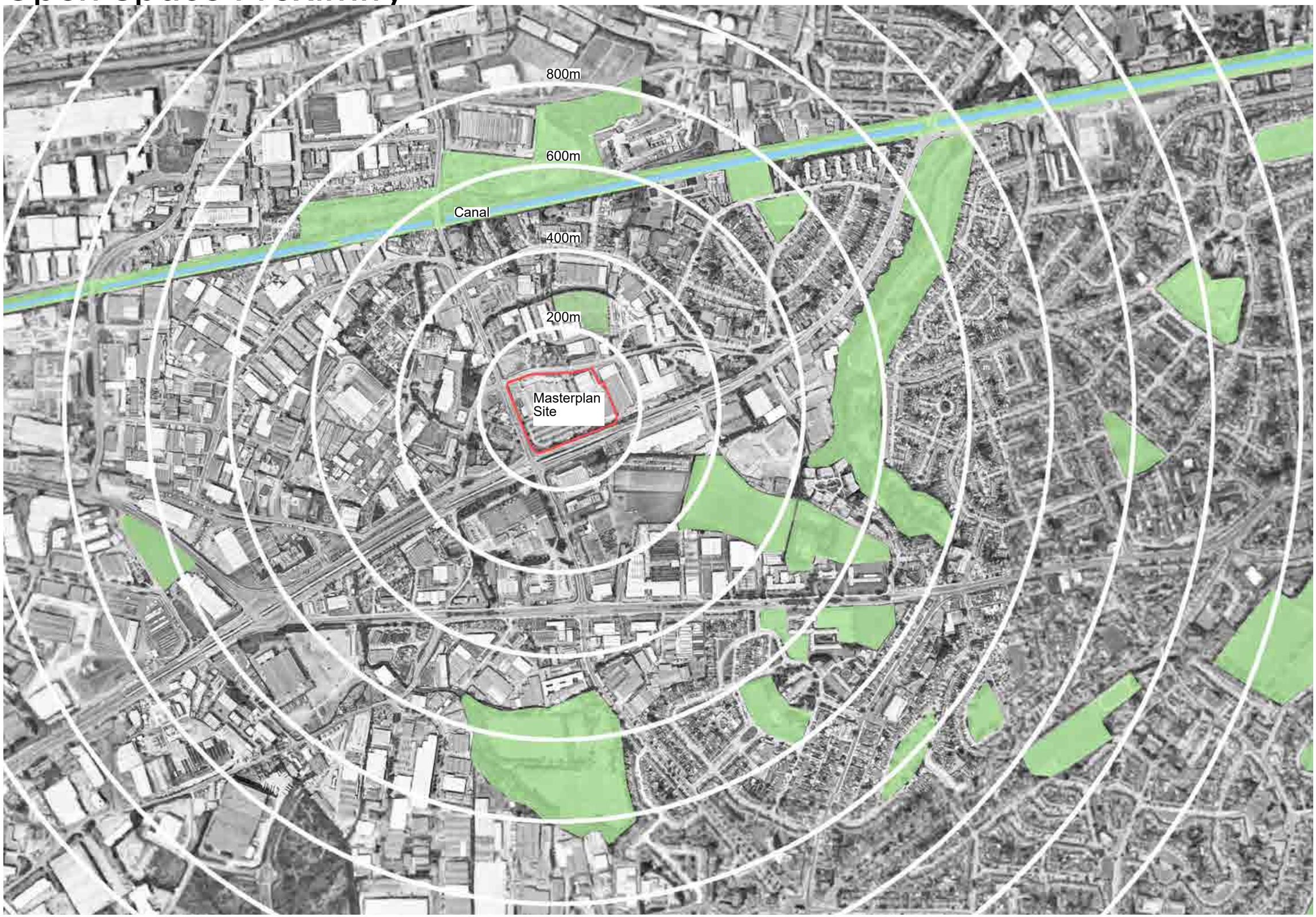
Green Space Access – proximity and accessibility

The proximity diagram illustrates how the site sits within an area of the road corridors of the Naas Road and Kylemore Road. With good pedestrian access across these corridors, and particularly across the Naas Road to Walkinstown Avenue and along Kylemore Road, the significant open spaces of Walkinstown Park (600m) and the Grand Canal Greenway (400m away) and the Lansdowne/ Camac river valley park (600m) are accessible. The proximity of this linear park and the Grand Canal Greenway mean that good connectivity, in a green setting, back towards the city centre is also available.



Lansdowne /Camac Valley Park - Tree Trail

Open Space Proximity



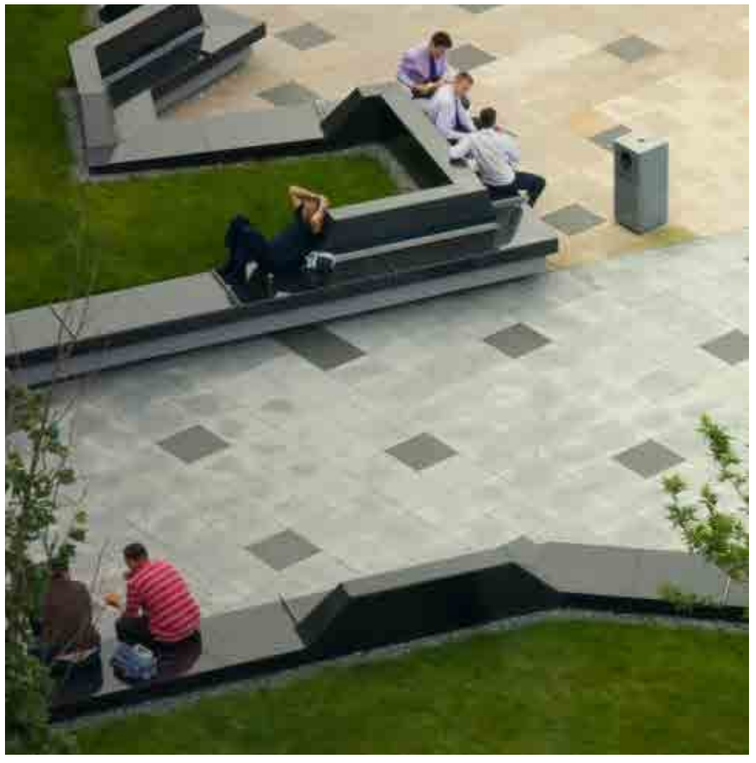
Design Strategy

Design Strategy - Sociability

The design strategy is based on 3 principles:

a. Sociability – designing places to encourage social interaction and therefore building a sense of community







Design Strategy - Play and Playfulness

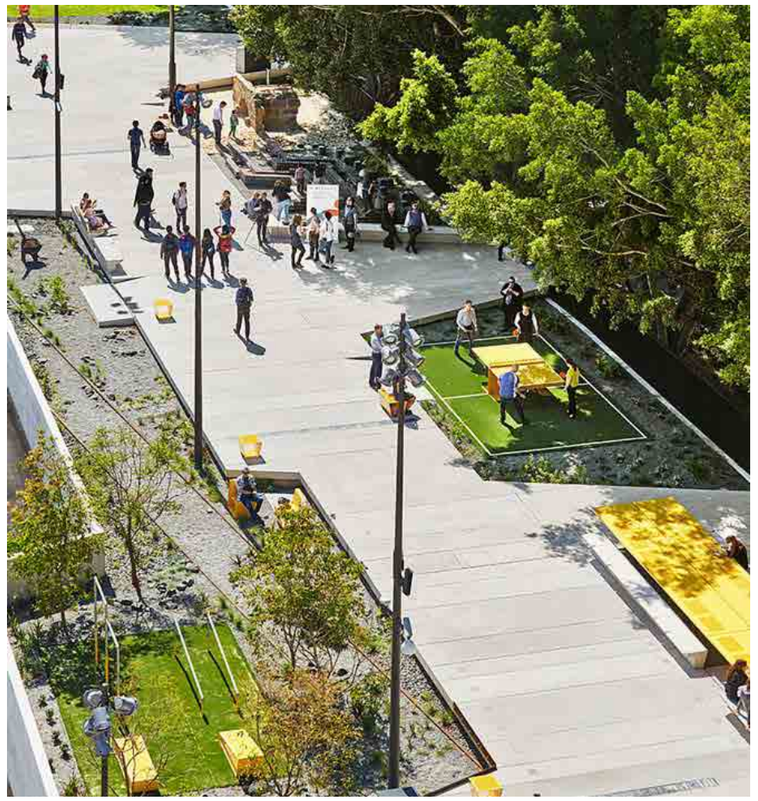
b. Play and Playfulness – providing statutory play and ensuring a playfulness in design to encourage opportunities for imaginative play across all ages and abilities. The play strategy identifies the formal play areas for younger and older children's play, and inclusive 'playfulness' – incorporated in to the civic plaza, residential courtyards and roof gardens.

TODDLER PLAY AREA - COURTYARD



OLDER PLAY - STREET AND NEIGHBOURHOOD PARKS





PLAYFULNESS - FORM AND LIGHT





Design Strategy - Sustainability

c. Sustainability – Nature Based Sustainable Drainage and Biodiversity - whilst general aspects of sustainable design and management practices will be incorporated, the SuDS strategy exemplifies the approach: visible management of water, achieving clean water through filtration and attenuation to reduce flood risk.











M+A

Design Development

Design Development

Landscape Plan

The landscape design layout is developed in tandem with the architectural layout taking in to account visual quality, desire lines, active frontage and activities to generate a sense of place. The scheme initially developed to maximise aspect and microclimate potential, which focusses on wind mitigation, sunlight and shade.

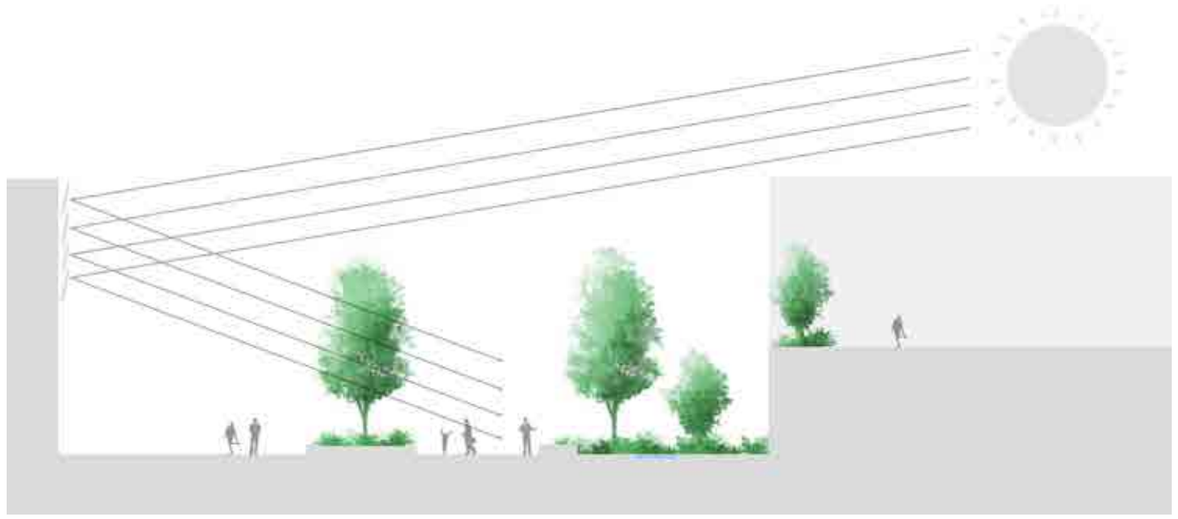
The wind mitigation is achieved in 3 ways; the façade development dealing mainly with downdrafts, the tree planting structure which baffles winds to avoid funnelling at the perimeters and within the site, and ground level street furniture and planting that gives more immediate shelter to seating and activity areas.

Aspect is approached by creating opportunities for active and passive amenity in both sun and shade; whilst generally sunshine is considered more beneficial, there is no doubt that on hot days, the shadow of trees and buildings offer respite. The intention in the shadier spots is to feel in the shadow of trees, with lush planting and rain gardens forming an oasis in the urban setting.

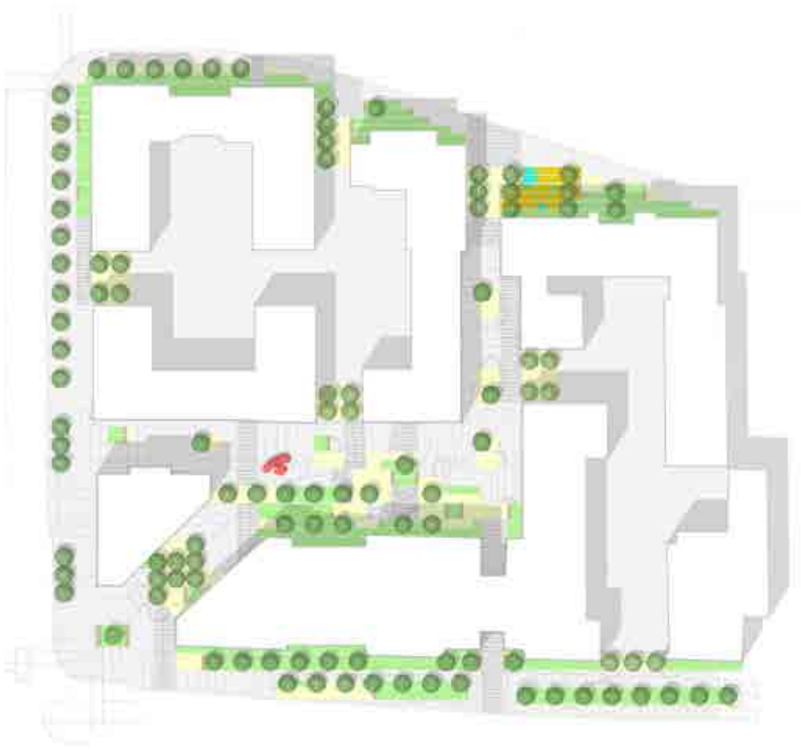
A similar approach to microclimate and aspect is followed for the residential courtyards.
A further layer which forms the landscape design is the relationship to the modular form of the architecture. This sets up a grid pattern that is then manipulated to develop particular spaces, giving a close relationship in scale and module, without being rigid. This basis of a modulated grid allows a strip to develop in particular spaces – across the civic plaza and repeated on the residential courtyards. These landscape strips contain varying elements depending on location and function from planting and swales, tree lines, street furniture, lighting, wind shelter, and seating.



Early masterplan sketch emphasising green/shade zones



Sketch section showing verdant shade zones and reflective light



Early masterplan sketch emphasising tree planting structure

Design Development

Ground Floor Plan

The ground level of the masterplan is framed by the large scale and busy Naas Rd and Kylemore Rd to the south and west, and the smaller Old Naas Road to the north. Phase 2 extends to the Naas Rd and Old Naas Road, with the Kylemore Road contained within Phase 1. These street corridor edges aim to assist in the development of best practice streetscape design in an otherwise uncomfortable and nondescript road corridor. They incorporate large scale tree planting in linear tree planting zones. These strips also have Sustainable Urban Drainage (SuDS) in swales, raingardens and within the tree pits, coordinated with street lighting, bike racks and the building façade. The 2m wide verge of amenity grass along the Naas Rd is intended as a sacrificial strip that can be removed if a cyclepath is introduced, leaving the principle arrangement of trees, lights, planting etc in situ. The western boundary deals with immediate screening of the warehouses and yard of the neighbouring builders' providers next door.

The development is entered at 4 points along the streetscape – the primary entrance being at the Naas Rd/Kylemore junction, close to the Luas (tram) stop where an entrance plaza with large trees and a simple planting bed modulates the scale of the junction and allows views through to the proposed civic plaza. There are two further entrances to the Civic Plaza, one from the Kylemore Road and one from the Old Naas Road to the north, which also has a small entrance plaza leading in to the scheme. A third access has been introduced in Phase 2 from Naas Rd, resulting in a new section of the civic space that faces southwards, and gives direct access to the proposed supermarket.

The internal streetscapes have the 'amenity strip' described earlier, and form the zones for formal and casual seating and planting.



Early masterplan sketch emphasising tree planting structure

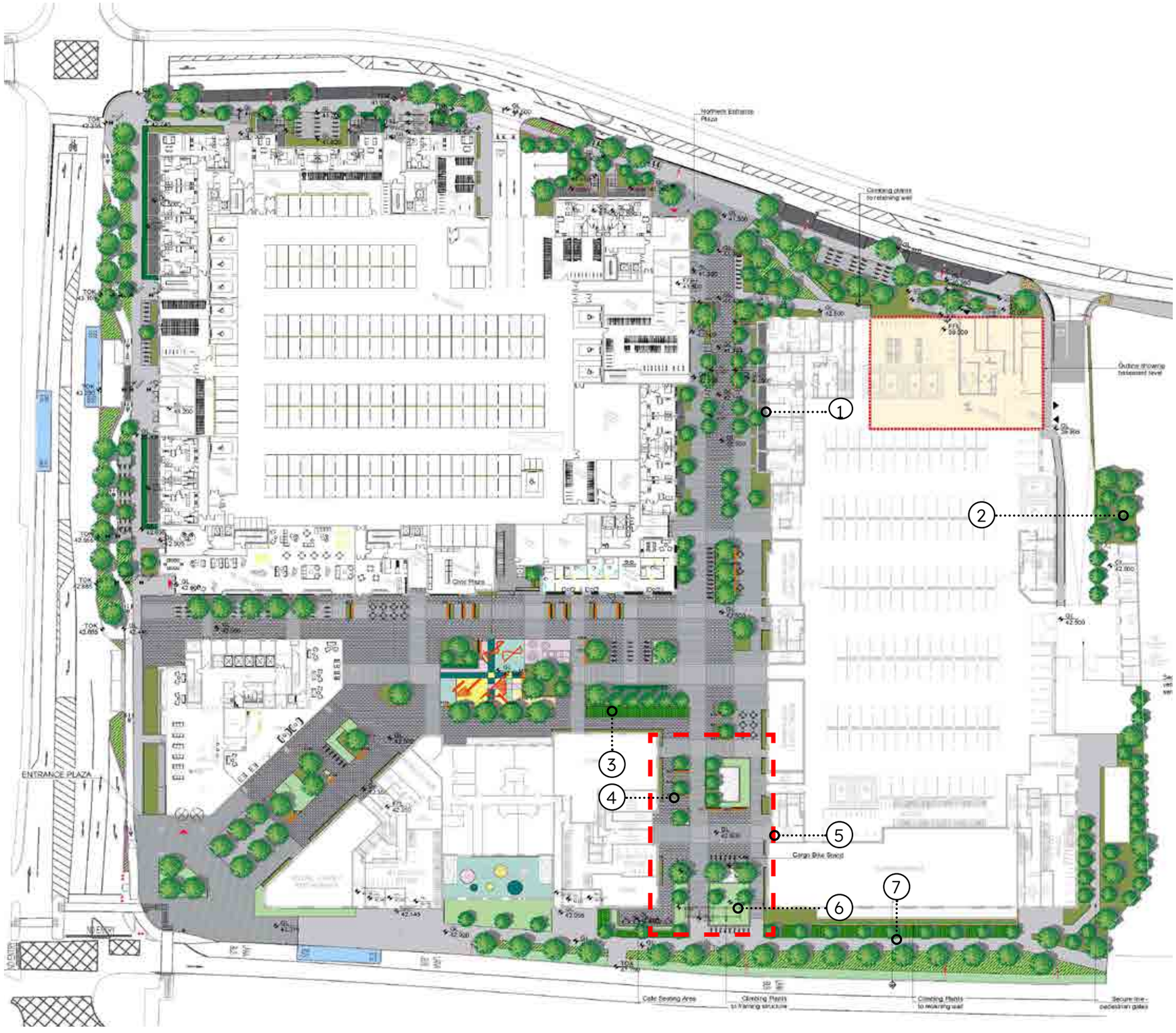
Permitted Planning Layout



Amended Layout
The zones highlighted in the plan are the key areas where modifications have been made to the permitted layout in the design development of Phase 2.

Proposals

Proposed Ground Floor Landscape Plan



1 - OWN DOOR UNITS
A large amount of additional green space and tree planting has been added to the own door units at the north west of Block D in the buffer areas to the private terrace and to the level change going north to south.

2 - WOODLAND PLANTING
An area of woodland has been proposed to the east of the site to increase the biodiversity value of the back-of-house area.

3 - CIVIC PLAZA NATURE BASED SUDS
Nature based SuDS areas have been reintroduced as a result of the smaller basement. Grass lawns are being avoided in the civic spaces due to the anticipated intensity of use in relatively shady areas .

4 - WIND MITIGATION
Raised planters and benches with high back rests are proposed between Blocks B and C to mitigate wind.

5 - ABOVE BASEMENT
The highlighted area is located above a basement. Planting in the space between Blocks B and C are proposed to be in raised planters.

6 - RAISED PLANTERS AT THRESHOLD
The threshold between the civic plaza areas and the Naas Rd streetscape is proposed to be heavily planted in 2 levels of raised planters.

7 - NATURE BASED SUDS TO STREETSCAPE
Large areas of Nature based SuDS are proposed on the Naas Rd streetscape to capture surface water from the paths and road.

Civic Plaza





Key Civic space design issues :

- Aspect and Micro-climate
- Connectivity with building uses
- Permeability with other spaces
- Outdoor leisure/ cafe seating
- Artwork/ cultural heritage
- Cycling and bike parking
- Event opportunities







Civic Plaza

The civic plaza itself is a generous space, strongly contained by the architectural form and carefully modulated in relation aspect, active frontage and circulation in order to set up a frame within which the landscape elements sit. The design intent is playful and the sculptural focal point is conceived as an element for physical and visual playfulness. The ground also undulates in places to inspire imaginative play, adjacent to café and retail spill out areas. This space creates a space for older children to play, promoting a social experience across the residential areas and people who visit the plaza.

An interactive relationship between internal and external spaces helps to activate the spaces and allow them to be used to their full potential. The civic plaza itself has the capacity to be used for events.







First Floor Communal Open Space

The main communal open spaces are at 1st floor level between blocks B1 & B2 (over the relocated crèche) and a larger space between blocks C1,C2 D1 & D2. The design form repeats the staggered grid similar to Phase 1, creating a series of routes and spaces that are defined by changes of materials, planting and hedges. These spaces have a range of potential uses, mainly passive and sociable, with some designated specifically for play for younger children. Older children and accompanied younger children can avail of further opportunities in the civic space at ground level.

Similar to Phase 1, the design incorporates animated Nature Based SuDS, pollinator friendly planting, tree canopies and structures to assist with creating a favourable microclimate.

Raised planters are used to create buffers to vents in the open spaces. Trees have also been strategically placed to form canopies over the vents to screen them when viewed from the residential windows and balconies above.



First Floor Communal Open Space





Key communal open space design issues ：

- Aspect and Microclimate
- Permeability with other spaces
- Defined spatial and visual privacy for residential spaces
- Opportunities to play, socialise and build communities









Roof Terrace Communal Open Spaces

The roof terraces on Blocks B1 & B2 supplement the communal open space at 1st floor level between these blocks. The passive layout allows for opportunities to avail of views, as well as more sheltered areas away from prevailing winds. This is reflected in the seating layouts which are oriented in various directions for views and shelter, and for more intimate social groupings. The landscape layout on the roof terraces ties the framing structures in with the raised planters to create social spaces in the dappled shade of the architecture and vegetation.

The spaces have the potential to be developed by the residents - for instance to incorporate bee hives or for small events.



Roof Terrace Communal Open Spaces

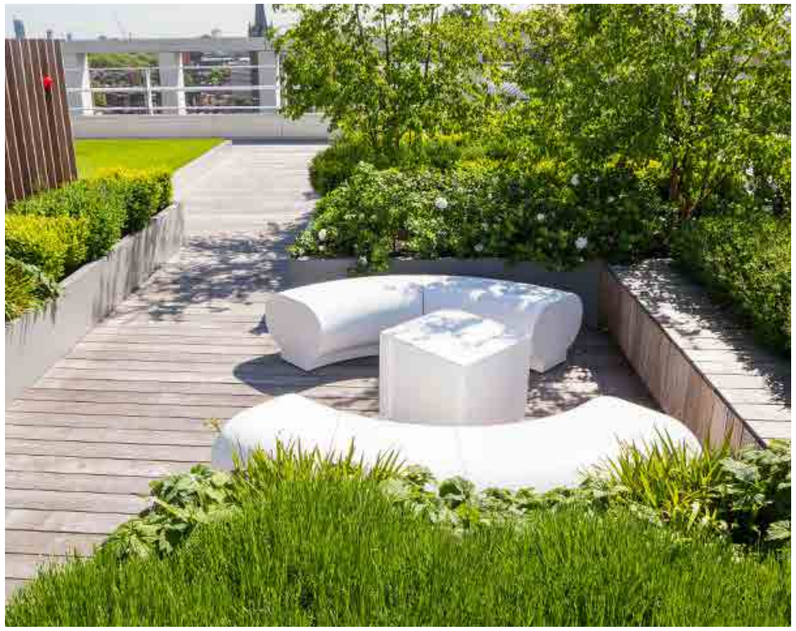












Key Roofgarden design issues :

- Aspect and Microclimate
- Potential for Shelter & views
- Connectivity with building uses
- Flexibility in use
- Opportunities to play and build communities
- SuDS
- Potential for Beehives & pollinators

Outline Planting and Materials

Trees

Street Trees

Plant Name	Common Name	Comment
Liquidambar straciflua	Sweet Gum	
Tilia cordata 'Streetwise'	Small Leaved Lime	Pollinator friendly
Platanus acerifolia	London plane	Feature tree
Pyrus calleryana 'Chanticleer'	Callery pear	Pollinator friendly
Ulmus 'Dodoens'	Elm tree	Pollinator friendly, elm disease resistant variety

Trees for Public Spaces and Communal Courtyards

Plant Name	Common Name	Comment
Acer campstre	Field Maple	Native, spring and autumn aspect
Acer griseum	Paperbark Maple	Autumn aspect, feature bark
Alnus glutinosa	Alder	Native
Amelanchier x lamarckii	Snowy Mespilus	Pollinator friendly, spring aspect
Betula pendula	Birch	Native, autumn aspect, feature bark
Betula utilis 'Fascination'	Chinese red birch	Autumn aspect, feature bark
Betula nigra	Briver birch	Pollinator friendly, feature bark
Cornus mas	Cornelia cherry	Pollinator friendly, winter aspect
Sorbus torminalis	Wild service tree	Native, pollinator friendly
Pinus sylvestris	Scots Pine	Pollinator friendly, evergreen, feature bark
Sorbus aucuparia spp.	Rowan	Native, pollinator friendly, spring and autumn aspect







Planting

Planting to sunny and semi-shaded areas

Plant Name	Common Name	Comment
Anemone 'Honorine Jobert'	Japanese Anemone	pollinator friendly
Achillea millefolium	Yarrow	native, pollinator friendly
Aster amellus	European Michaelmas Daisy	
Campanula persicifolia	Bellflower	
Choisya ternata	Mexican orange	pollinator friendly, evergreen
Deschampsia cespitosa	Tufted hair grass	native
Foeniculum vulgare	Fennel	native
Geranium 'Rozanne'	Geranium	groundcover, pollinator friendly
Lavandula angustifolia	Lavender	pollinator friendly, evergreen
Leucanthemum vulgare	Ox-eye daisy	native, pollinator friendly
Pennisetum 'Fairy tails'	Fountain grass	
Rosmarinus officinalis	Rosemary	pollinator friendly, evergreen
Perovskia 'Lacey Blue'	Russian sage	pollinator friendly
Salvia officinalis	Sage	pollinator friendly, evergreen
Sedum spectabile 'Stardust'	Ice Plant	pollinator friendly
Thymus vulgaris	Thyme	pollinator friendly, evergreen
Verbena bonariensis	Purpletop vervain	pollinator friendly
Viburnum tinus	Viburnum	pollinator friendly, evergreen

Planting to sunny and semi-shaded areas

Plant Name	Common Name	Comment
Anemone 'Honorine Jobert'	Japanese Anemone	pollinator friendly
Blechnum spicant	Hard fern	native, evergreen
Galium odoratum	Sweet woodruff	native, pollinator friendly
Hedera hibernica	Ivy	native, pollinator friendly, evergreen
Luzula nivea	Snowy woodrush	pollinator friendly, evergreen
Osmunda regalis	Royal fern	native
Pachysandra terminalis	Green carpet	evergreen
Polypodium vulgare	Common polypody	native, evergreen
Polystichum setiferum	Soft shield fern	native, semi-evergreen
Sarcococca var. humilis	Sweetbox	evergreen, pollinator friendly



Furniture and Materials



Sheffield Bike Stands



Metal Raised planters to first floor and roof gardens



Raised planters to Ground Floor above podium



Feature paving to key areas of civic plaza

Outline Specification

Outline Specification

Description of Work
The work consists of general works, site preparation, soil preparation, grass and meadow seeding, bulb/corm planting, shrub/groundcover planting, hedge and tree planting.
Exact dates for completion of works will be finalised after the award of the contract.
The construction of hardworks shall be carried out in tandem with the main construction programme whereby care is taken to avoid any unnecessary machinery traffic on completed areas.
Topsoiling shall be carried out in areas where the underground service works and hardworks elements are complete so that no undue disturbance to topsoiled areas is ensured.
Planting of bare root and rootballed stock shall take place in the following planting season from completion of topsoil works; namely November – March. Container grown stock and grass seeding shall be carried out in the appropriate weather conditions following completion of topsoil works

Standards of Workmanship and Materials
The Landscape Contractor shall satisfy the Landscape Architect that all works have been carried out to comply with BS 4428(General Landscape Operations), BS 3936 (Nursery Stock), and BS 3882 (Topsoil).
It is essential that the site is tidy at all times, and that the planting appears healthy. The Landscape Contractor should be prepared, at all times, to ensure that such conditions are met and should include for this in his rates.
Any materials not meeting the specifications or qualifying for the approval of the Landscape Architect, for whatever cause, shall be rejected.
The Landscape Contractor shall familiarise himself/herself with the layout of services and the positions of all structures on the site and shall be liable for any damage to the above.
No existing plants shall be removed or damaged, other than those specified by the Landscape Architect

Notice of Intentions and Recording Actions
The Landscape Contractor shall give 48 hours notice of his intention to commence setting out, planting and maintenance visits.
The Landscape Contractor shall return a weekly record of all site actions.
Leaving the Site Tidy
The site shall be left in a neat and orderly condition at the end of each day's work.
Season
Landscape work shall take place in the appropriate season and only when the conditions are suitable, i.e. it is dull, moist and mild, without undue risk of frost or drying winds.
There shall be no cultivation or planting when the soil is frozen or waterlogged.
If exceptional weather conditions occur after planting, e.g. heavy frosts, measures shall be taken as approved by the Landscape Architect.

Replacement
The sub-contractor shall make good at his own expense any losses of trees and plants which die or appear unhealthy at any time up to practical completion and in the twelve months after planting.
The sub-contractor shall make good at his own expense any losses of trees and plants which die or appear unhealthy at any time prior to hand over.
Plant failures will not be charged to the Landscape Contractor if the failure is due to; damage by hares, rabbits, deer, livestock where not protected by guards or fencing, damage/ losses due to theft, vandalism or disturbance by other contractors.
Persistence of weed in planted areas will be regarded as a contributory cause of failure due to drought. Prolonged dry weather will not exonerate the landscape Contractor if the scheduled maintenance operations have not been carried out as programmed.

Damage
All trees and plants are to be adequately and carefully packed and protected to survive transport, whatever means, to the site, during loading, transit or unloading.
If in spite of these precautions roots, branches, or shoots suffer slight damage, they are to be carefully pruned.
If major damage has occurred, the plant or tree shall be rejected and replaced at the Landscape Contractor's own expense.

Defects Liability Period
The Landscape Contractor shall be responsible for any plants that fail to take during the first full growing season (18 months) from date of completion.

Protection
The Landscape Contractor shall provide adequate temporary protection to the whole of his work and shall include temporary coverings, planked barrow runs and all other measures for protecting the work from damage.
The Landscape Contractor shall also protect from damage all existing roadways, kerbs, services and other completed works on site.
Any work damaged or soiled by weather, traffic or other causes due to inadequate temporary protection shall be removed and made good at the cost of the Landscape Contractor. The form of protection is left to the discretion of the Landscape Contractor.

Programme for Landscape Works

Operation
The Landscape Contractor shall execute his works in conformity with a programme to be agreed with the Landscape Architect and shall include in his estimate for working within an agreed time limit.
No individual areas will be handed over unless there is an agreed sectional completion. The Landscape Contractor shall allow for keeping individual areas adequately maintained until the whole has been completed.

Earthworks
Any subsoil and/or topsoil stripping and storage shall be done prior to commencement of construction of roads, buildings, services, etc. and shall be carried out as set out in the landscape architects specification for earthworks.
No works in relation to grading and topsoiling shall be carried out in conditions where materials are wet.
Any stockpiling of soil shall be in accordance with landscape architects specification whereby stockpile heaps will not exceed 1.5m in height to avoid compaction. While topsoil is stacked, measures will be taken to ensure that weed control by spraying with total or appropriate selective weedkillers is carried out during the growing season to prevent weeds seeding.

Hardworks
The construction of hardworks shall be carried out in tandem with the main construction programme whereby care is taken to avoid any unnecessary machinery traffic on completed areas.
Softworks
Topsoiling shall be carried out in areas where the underground service works and hardworks elements are complete so that no undue disturbance to topsoiled areas is ensured.
Planting of bareroot and rootballed stock shall take place in the following planting season from completion of topsoil works; namely November – March. Container grown stock and grass seeding shall be carried out in the appropriate weather conditions following completion of topsoil works

Site Inspection
Prior to the submission of tenders to the Landscape Architects, the Landscape Contractor is expected to visit the site and familiarise himself with the nature of the existing roads and pathways, the soil conditions, slope gradients, any hazards and other matters affecting the works. No extra charges will be made for any misunderstandings, or incorrect information or any of these points, or on grounds of insufficient description or lack of information will be allowed.

Setting Out
The Landscape Contractor will be responsible for checking all schedules and drawings by the Landscape Architect. In the event of any discrepancies being found between such schedules and drawings, or if the Landscape Contractor considers that additional detail drawings are required, the Landscape Contractor shall report such discrepancy in writing at least ten days before the works are to be executed.
The right is reserved to adjust the exact position of trees and specimen shrubs after they have been set out on site.
Any trees which are planted without approval of the setting out may be required to be re planted at the Landscape Contractor's expense.

Supervision and Contractor's Staff
The Landscape Contractor shall ensure full and adequate supervision of the site during the duration of the works.
The Landscape Contractor shall at all times during the Contract period employ sufficient persons of appropriate abilities, skills, care, and experience as are required for the proper performance of the Services in accordance with the Contract and shall ensure that a sufficient reserve of persons is available to provide the Services during holiday periods, absences due to sickness and special events/emergencies.
The Landscape Contractor will appoint a Contract Manager to supervise those persons employed to perform the Services in accordance with the Contract. The Contract Manager must be available and present in the Contract Area at all times that the Services are being carried out.
The Landscape Contractor shall notify the Supervising Officer of the name, address and telephone number of the appointed Contract Manager who will be responsible for receiving notification from the Employer of complaints and instructions under the Contract. The Employer shall be entitled to notify the Landscape Contractor by notice in writing to remove from the Contract or discipline any employee of the Landscape Contractor (which for avoidance of doubt shall include the Contract Manager or his deputy) who, in the reasonable opinion of the Supervising Officer, has shown himself to be unsuitable to perform his duties under the Contract. The Employer shall in no circumstances be liable either to the Landscape Contractor or to the employee in respect of any liability, loss or damage occasioned by such removal or disciplinary action and the Landscape Contractor shall fully and promptly indemnify the Employer against any claim made by such employee.
The Landscape Contractor shall ensure that every person employed by the Landscape Contractor in and about the provision of the Services is at all times properly and sufficiently trained and instructed with regard to: the task the person has to perform;
any relevant provisions of the Contract; relevant rules, procedures and standards of the Employer; all relevant rules, procedures and statutory requirements concerning Health and Safety at work; fire risks and fire precautions; and the

Outline Specification

necessity to observe the highest standards of courtesy and consideration to the public to promote and enhance the Employer's image and reputation.

Sequence of Operations
The sequence of operations shall be as described unless written authority to vary is obtained from the Landscape Architect.

SPECIFICATION

EARTHWORKS
Method of work
No works in relation to grading and topsoiling to be carried out in conditions where materials are wet.
Provide catchment drains or ditches to collect excess run-off and prevent water entering from adjacent land. Do not run machinery over ground before stripping.
Strip the full depth of sod and topsoil. Avoid stripping into the subsoil layers.
Where a hedgerow is to be maintained, do not strip within 4 metres of it. Soil must not be stripped from any part of the area under the canopy of an tree which is to be retained.

Stockpiles
When soil is in a condition for stacking, remove all topsoil to its full depth and place it in heaps either off site in a convenient position, or on the neutral line of cut and fill. Strict precautions are essential to prevent loss or admixture with subsoil.
Soil heaps should be formed in positions which facilitate eventual respreading, reduce travel to a minimum and will not result in interference with subsequent major levelling and/or grading operations. Stockpiles shall be located on dry, free draining ground, not subject to standing water. If water ponds against the stockpile, temporary drains shall be cut to relieve it. Avoid running machinery over stockpiles.
Stockpile heaps should not exceed 1.5m in height to avoid compaction.
While topsoil is stacked, measures should be taken to ensure that weed control by spraying with total or appropriate selective weed killers is carried out during the growing season to prevent weeds seeding.
Topsoil stockpiles shall not be covered by subsoil, rock, rubble, site debris, fuel or chemical pollution. Where there is a danger of contamination or topsoil and subsoil stockpiles intermingling the topsoil stockpile shall be fenced off.
Temporary yards, storage areas or hardstanding areas shall not drain towards topsoil stockpiles.
Topsoil is the property of the Employer, and shall not be removed from site without consent given from Employer or Landscape Architect.

Subsoil cultivations
Subsoil should be placed in layers not exceeding 150mm thick; consolidation of fill may be accomplished by the use of special compacting machinery or by running over it with the next load; filling by tipping over an exposed face is not recommended because of the difficulty of consolidation.
After completion of subsoil moving, the formation level should be graded with the box scraper to even, running contours and then, depending on the soil texture and degree of compaction, loosened with a subsoiler or ripper.
Subsoil levels
Subsoil levels shall be 200mm below the finished ground levels in all areas for grass seeding to allow for 250mm of topsoil to be placed so that 50mm of topsoil stands proud of all kerbs, paths, etc.
Subsoil levels shall be 400mm below the finished ground levels in all areas for shrub planting to allow for 450mm of topsoil to be placed so that 50mm of topsoil stands proud of all kerbs, paths, etc.
Subsoil levels shall be 550mm below the finished ground levels in all areas for shrub planting to allow for 600mm of topsoil to be placed so that 50mm of topsoil stands proud of all kerbs, paths, etc.
Subsoil levels in all areas for tree planting shall be 900mm below the finished ground levels to allow for 900mm of topsoil to be placed.

Topsoil
Topsoil shall be native topsoil as removed and stored.
All imported topsoil to be of medium texture, pH matching that of the native topsoil, stone content 10mm in size not greater than 5% by weight, and no stones greater than 40mm in any dimension, and shall conform to BS 3882:1965. Topsoil shall be a free draining sandy loam. Depth of topsoil to be as specified.
Topsoil shall be free of perennial weed roots, i.e. couch grass, sticks, sub soil or any waste, toxic, putrescent or foreign matter.
After spreading, the soil should be cultivated to crumb size to a condition suitable for blade grading. Large stones and unwanted material 75mm and over should be picked off and carted away. Areas should then be blade graded to true flowing contours.
As topsoiling proceeds all consolidated wheel tracks shall be forked over.
Final grading of the top 150mm is to be carried out to ensure a true specified level and slope to avoid dishing or other depressions where water may collect. The use of a heavy roller to roll out humps will not be permitted and any area that becomes unduly compacted during the grading operation shall be loosened by forking or harrowing.
Topsoil levels
All topsoil shall be placed and graded by the Main Contractor to the following levels:

- grass seeding 150mm
- shrub / general planting 450mm
- hedge planting 600mm
- tree planting pit 1200mm x 1200mm x 1200mm or per detail

Maintenance of topsoil stockpiles
Maintain weed free.

Tree Planting
Planting pits for trees in undisturbed ground will be backfilled with excavated material. Tree pits in mounds or other made up ground shall be backfilled with topsoil.
All tree pits for all trees other than semimature trees shall be excavated 200mm wider in all directions than the natural root spread, or rootball, and the base forked to improve drainage. Stakes shall be positioned before backfilling.
Topsoil backfill shall be mixed with peat substitute in the ratio of 4:1.
60g Enmag or similar approved slow release fertiliser shall be incorporated.
The backfill shall be settled and well firmed around the roots avoiding air pockets.
All semimature tree pits shall be excavated 500mm wider than the natural root rootball, and 150mm deeper to allow for 250mm of backfill mix, tamped firm to 150mm. In all semimature tree pits an additional depth of 150mm should be dug to allow for a 150mm gravel layer at the bottom of the pit to aid in drainage.
Sides of tree pit shall be ripped and loosened to ensure a good bond with the backfill and to avoid root girdling.
All semimature tree pits shall be backfilled with mix consisting of: 10 parts native topsoil and 5 parts sharp sand. 60g Enmag or similar approved slow release fertiliser shall be incorporated.

Plants Generally
All plants shall conform fully to the specification in respect of species, size and quality.
The Landscape Contractor shall investigate the sources of supply and satisfy himself that he can supply all of the plants specified on the planting schedule in the size, variety and quality before submitting a bid. Substitutions will not be permitted. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of nearest equivalent size or variety, with an equitable adjustment of contract price.
All plants shall be well grown, sturdy and bushy, according to type, and free from all disease and defects.
The Landscape Architect reserves the right to reject any plant material before or after planting if it does not conform with the specification.
All plants shall be adequately hardened off prior to planting, where frost or cold winds may be a problem. All plants shall be supplied with temporary labels with the full botanical name , on each bundle or batch of plants.
The Landscape Contractor should indicate in their tender source of material to be used and where it can be inspected prior to award of contract.
All plants that do not conform to the specification will be automatically rejected and must be removed from site and replaced at the Landscape contractor's expense.
All trees, shrubs and other plant material shall comply with the minimum requirement of the relevant British Standards below:

BS 3936	Part 1: Specification for trees and shrubs
BS 3936	Part 4: Specification for forest trees
BS 3936	Part 5: Specification for Poplars and Willows
BS 3936	Part 6: Specification for herbaceous, perennials and alpines
BS 3936	Part 9: Specification for bulbs, corms and tubers
BS 3936	Part 10: Specification for groundcover plants

Time of Lifting
Bare root plants must only be lifted when the ground is moist and the plant is dormant between November and end March of the current year. Lifting must never take place when there is a severe ground frost. Particular attention must always be paid to the protection of the roots on lifting when there is a strong drying wind or sun.

Protection
Care must be taken to ensure that bare roots are protected from physical damage and desiccation at all times. All bare roots must be covered within two hours of lifting.

Bundling
Whip planting must be in bundles of the same species and size, all shoots must face in the same direction so that roots and shoots are not in contact, and must be of equal numbers. Bundles are to be securely tied with supple material which will not, by its nature or tension, cause damage to the plants.

Labelling
Each individual plant, bundle, bag, or lot of one species shall be labelled with a securely attached label, clearly indicating the plant name, grade and quantity.

Grass Seed
Grass seed shall conform to the requirements of British Standard 4428:1969 and subsequent amendments, and to the European communities (seed and fodder plants) regulations 1976.
The Landscape Contractor shall supply, with each seed mixture, a certificate

Outline Specification

stating the composition, purity, germination, year of collection and country of origin.
The germination capacity of each constituent of the mixture should be not less than 80%, and the purity of the mixture not less than 90%.
Total weed seed content should not be more than 0.5% and the total content of other crop seeds should not be more than 1%. These minimum figures shall be for the current 14 month period of annual tests.
The seed is to be thoroughly re-mixed before sowing to avoid patchiness on the ground and is to be 'Coburns Urban Parks mix' or similar approved, sown at a rate of 35 - 50g per square metre.

Perennial Meadow Seed
- Application rate: 3g/m2

Origin: local provenance for all native seed species

Quality of Seed for Perennial Meadows
- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.

Standard: EC purity and germination regulations and Department for Environment, Food and Rural Affairs Higher Voluntary Standard.
Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

Sowing Perennial Meadow Mix
- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.

Distribution: 2 equal sowings at right angles to each other and diagonally to main axis.

Container grown Shrubs, Groundcovers, Climbers and Herbaceous Plants
Shrubs shall be bushy, well established nursery stock with a good fibrous root system. They shall be container grown, true to size, name and description as scheduled. Shrubs shall conform to the appropriate British Standards.
Plants shall not be pot bound, nor with roots deformed or restricted.
Bare root material will only be accepted where specified.
Herbaceous plants shall be supplied as well rooted clumps, showing several healthy buds, and grown in pots. Pots shall be appropriate to the size of the plant supplied, minimum size 0.5litres (80mm square or 90mm diameter).

Whips and Transplants
All plant material must comply in all respects with the current edition of BS 3936 Parts 1, 4, and 5.
Transplants shall not be less than 3 years old and have been transplanted at least once. Trees shall be sturdy, with a balanced root and shoot development, sizes shall conform to schedule.
Willows shall have been stumped and transplanted at the end of the first year in the nursery.
Trees
Trees shall conform to the appropriate British Standards.
All trees should be full and well shaped, bark unmarked and have healthy root systems.
The Landscape Architect must inspect and approve all trees prior to lifting or planting. Trees must all be of identical size and shape and should originate from the same stock nursery and stand.
Rootballed trees shall be rootballed immediately when lifted at the nursery.
The rootball shall be suitable for the size of crown and the rootball shall be flat bottomed.
The rootball shall be formed through regular transplanting; every 2-3 years minimum. The rootball shall be wrapped in hessian and steel wire netting or other suitable and approved decomposable material.
Standard pleached trees shall have a clear stem 1.7m to 1.85m in height from ground level to the lowest branch, a minimum girth of 8cm at 1m from ground level and a total height of 2.75m to 3m.
They shall have a well-defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown shall be well shaped, balanced, of a form and habit natural for the species.
All advanced nursery trees shall comply with BS 5236: 1975. They shall have a well-defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown shall be well shaped, balanced, of a form and habit natural for the species. Trees shall have a sturdy, reasonably straight stem not less than 1.8m from ground level to the lowest branch.
All advanced nursery stock trees shall be supplied with roots balled.
All coniferous trees shall be supplied rootballed or container grown, with a good fibrous root system. Trees shall conform to specified height with well developed, uniform branching systems.

Shrub/Groundcover Sizes
All shrubs and groundcovers shall be supplied as sizes indicated in the Bill of Quantities and Contract drawings.

Whip Sizes
Unless otherwise specified, all trees shall be as follows:-
Whips, 600 - 1200mm high, 150 x 150 x 150mm minimum root dimension. To have a sound central leader and well formed branches.

Tree Sizes
Unless otherwise specified, all trees shall be as follows:-

Type	Girth	Height
Whip planting	-	600-1200mm
Half Standard Tree	4-6cm	1.8-2.1m
Light Standard Tree	6-8 cm	2.25-2.5m
Standard Tree	8-10 cm	2.75-3m
Selected Standard Tree	10-12 cm	3-3.5m
Heavy Standard Tree	12-14 cm	3.5-4m
Extra Heavy Standard Tree	14-16 cm	4-4.5m
Advanced Extra Heavy Standard Tree	16-18 cm	5m
Semimature Tree	20-22 cm +	6.5-7m +

Tree Anchors, Stakes, Guys, etc.
All trees other than semimature trees and whips trees shall be supplied and fitted with one tree stake per tree.
Tree stakes shall be peeled poles of oak, sweet chestnut, pine or douglas fir, or tanalised larch. All stakes shall be preserved with water borne copper chrome arsenic to IS 131, to a net dry salt retention of 5.3kg per cubic metre of timber.
Stakes shall be supplied as sizes specified.
They shall be at least 1.8 metres long unless otherwise specified, with a minimum diameter of 75 mm at both butts.
Stakes shall be driven prior to planting with a drive all, wooden maul or cast iron mell, not with a sledge hammer.
Trees shall be tied to each stake with a purpose made tie and spacer, the tie to be overlapped and thrice nailed to the stake. Tree ties shall be rubber or PVC or proprietary fabric laminate composition, and shall be durable enough to hold the tree secure in all weather conditions for a period of three years.
They shall be flexible enough to allow for proper tightening of the tie.
Tree ties shall be 25mm -40mm wide depending on tree size. They shall be fitted with a simple collar spacer to prevent charring, and with a buckle for adjustment.
All Semimature trees shall be supplied and fitted with anchoring system: "Platipus root anchoring system kit"

Mulch
Mulch shall be graded bark chippings from coniferous trees, particles 25 - 75mm, free of fine material, dust or wood.
Mulch will be rejected if in the Landscape Architect's opinion it is likely to be wind blown.
The Contractor should arrange to have an on site sample (or samples) inspected by the Landscape Architect prior to spreading. Spreading without the approval of sample is at the Contractor's own risk.
Approved chemicals
All chemicals used shall be non-toxic to human beings, birds and animals under normal use, and chemicals which are not agriculturally approved shall not be used.

All weed killer and fertiliser shall be applied with properly designed equipment, maintained in good order and calibrated to deliver the specified volume, evenly and without localised overdosing. All quantities shall be accurately measured.

Outline Landscape Specification for Softworks Maintenance Works -

MAINTENANCE OF TREE PLANTING
Maintenance period
The Landscape Contractor shall be responsible for the aftercare and maintenance of the completed works for 18 months from the date of practical completion.

Weed control
Weeding may only be done by hand, except in exceptional circumstances where persistent perennial weeds may be treated chemically. The use of chemicals shall only be upon approval from the Landscape Architect.

Watering
Careful attention to water is essential during dry spells and may be critical in the case trees. Trees shall be watered as necessary and to their full planting depths. Water trees as required after any period of 4 weeks without significant rainfall (less than 5mm).

Fertilizer
Apply top-dressings of organic matter such as cow, horse or sheep manure or proprietary materials to trees and shrubs once in spring, twice during the summer and once again in winter.
This treatment is to be carried out for the duration of the maintenance contract.
Alternatively, if so wished, inorganic fertilizer can be applied as 'Osmocote' 18:11:10, @ 50g / square metre in spring and late summer.

Pruning / trimming
Any pruning should involve removal of dead, diseased or badly crossing branches or shoots. Dead heading reduces competition for nutrients between the developing seeds and the rest of the plants so that further growth and flowering is often stimulated.

Outline Specification

Wind firmness, stakes and tree ties
All plants shall be regularly inspected for wind firmness and firmed as necessary at the same time. Stakes shall likewise be checked for firmness and all tree ties inspected and made good as required.

MAINTENANCE OF SHRUB PLANTING

Maintenance period
The Landscape Contractor shall be responsible for the aftercare and maintenance of the completed works for a minimum 12 months from the date of practical completion.

Weed control
Weeding may only be done by hand, except in exceptional circumstances where persistent perennial weeds may be treated chemically. The use of chemicals shall only be upon approval from the Landscape Architect.
INoxious weeds (dock, thistle, ragwort) shall not be allowed to establish.
All soil surfaces shall be generally free of weeds at all times and shall be entirely free of weeds after each maintenance visit. No grass shall be allowed to encroach into soil areas.

Watering
Careful attention to water is essential during dry spells and may be critical in the case large shrubs. Shrubs shall be watered as necessary and to their full planting depths.

Fertilizer
Apply top-dressings of organic matter such as cow, horse or sheep manure or proprietary materials to trees and shrubs once in spring, twice during the summer and once again in winter. This treatment is to be carried out for the duration of the maintenance contract. Alternatively, if so wished, inorganic fertilizer can be applied as 'Osmocote' 18:11:10, @ 50g / square metre in spring and late summer.

Pruning / trimming
Any pruning should involve removal of dead, diseased or badly crossing branches or shoots. Dead heading reduces competition for nutrients between the developing seeds and the rest of the plants so that further growth and flowering is often stimulated.
Deciduous shrubs are best pruned in winter when new and old growth can be easily distinguished.
Allow shrubs which flower on the current season's growth to be pruned back to older wood soon after flowering.
Any pruning should involve removal of dead, diseased or badly crossing branches or shoots.
Dead heading reduces competition for nutrients between the developing seeds and the rest of the plants so that further growth and flowering is often stimulated.
All hedges shall be clipped to maintain uniform and tidy appearance.

Wind firmness
All plants shall be regularly inspected for wind firmness and firmed as necessary at the same time.

MAINTENANCE OF GRASS SEEDED AREAS

Maintenance period
The Landscape Contractor shall be responsible for the aftercare and maintenance of the completed works for 12 months from the date of practical completion.
First roll and cut
When grass has grown to 38mm it shall be lightly rolled and two days later mowed with an approved mower having no roller and sufficiently sharp to avoid root pulling. Mowing shall be carried out under dry weather conditions.
Further cuttings
Thereafter grass shall be cut regularly (a total of 32 times during each growing season) to a length consistent with the season and quality of growth, and rolled as necessary. Cuttings shall not normally be removed unless otherwise directed. Cuttings shall be spread evenly on grassed areas. All grass cuttings shall be swept and removed from hard standing areas.
Note: Grass shall be established with a height of cut at about 20mm. Mowing shall be carried out under dry weather conditions. Prior to mowing all litter shall be removed from grass areas. Grass cutting in areas of bulbs/corms shall not be undertaken until June or until such time as dieback has occurred.

Fertilizing
The sward shall be given one application of an approved top dressing 10:10:20 applied in two equal passes in transverse directions at a combined rate of 17 g/ square metre, also avoid any banding.

Settlement
Any settlements or local depressions shall be made up by the Landscape Contractor at his own expense.
The whole new grass areas shall be handed over as complete well established sward at the end of the maintenance period and all necessary work (whether specifically mentioned or not) shall be carried out to secure this end.

Trimming
The edges of seeded areas adjoining beds and margins where board edgings or mowing margins have not been constructed are to be carefully trimmed square and true to line.

Acceptance
Unless otherwise stated in the programme of completion, individual areas will not be accepted until the whole of the works have been completed. The Landscape Contractor shall include for keeping such areas correctly maintained and protected until handed over.

GENERAL

Debris removal
All paper and trash in the planted areas shall be removed on a monthly basis. All paper and trash shall be disposed of by the contractor outside of the Client's facilities.
Remove excessive amounts of leaf and litter (dead twigs, branches, leaves, bark, etc.) as it accumulates in maintained areas. Leaves and other organic material useful as a mulch may be left in place upon approval of the Client. Additional visits will be facilitated as requested by Client.
Stone or debris over 50mm diameter shall be removed or buried after each maintenance visit.

Monthly Maintenance - Maintenance Certificate
Throughout the one year maintenance period following completion of planting, the Contractor shall maintain the site in a weed free, tidy and tended condition. He shall include in the Schedule of Rates a realistic amount to cover the cost of such maintenance for the full year period.

MAINTENANCE OF GRASSED AREAS WITH PERENNIAL WILD FLOWERS/ MEADOWS

Duration
Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.

Fertilizing
Do not fertilise

Preparation
Before each cut remove all litter and debris.

Height and frequency of cut in first growing season
- Time of first cut: dependant on sowing season.
- Height of first cut: 75 mm.
- Frequency of subsequent cutting (minimum): to suit seed mix and to suppliers
- Recommendations to establish wildflower sward. Height of growth permitted (maximum): 500mm.

Height and frequency of cut in second growing season
- Time of cut: to suit seed mix and to suppliers recommendations to establish wildflower sward.
- Height of cut: 75 mm.
- Implement 6 weekly mowing following seeding season as appropriate to mix

Trimming
All edges.
Arisings: Remove.

Watering
As necessary to ensure establishment.



Unit 5, Woodpark
The Rise
Glasnevin
Dublin 9
D09 NA02

www.mitchell.ie

+ 353 1 454 5066