



Great Connell SHD, Newbridge

APRIL 2022

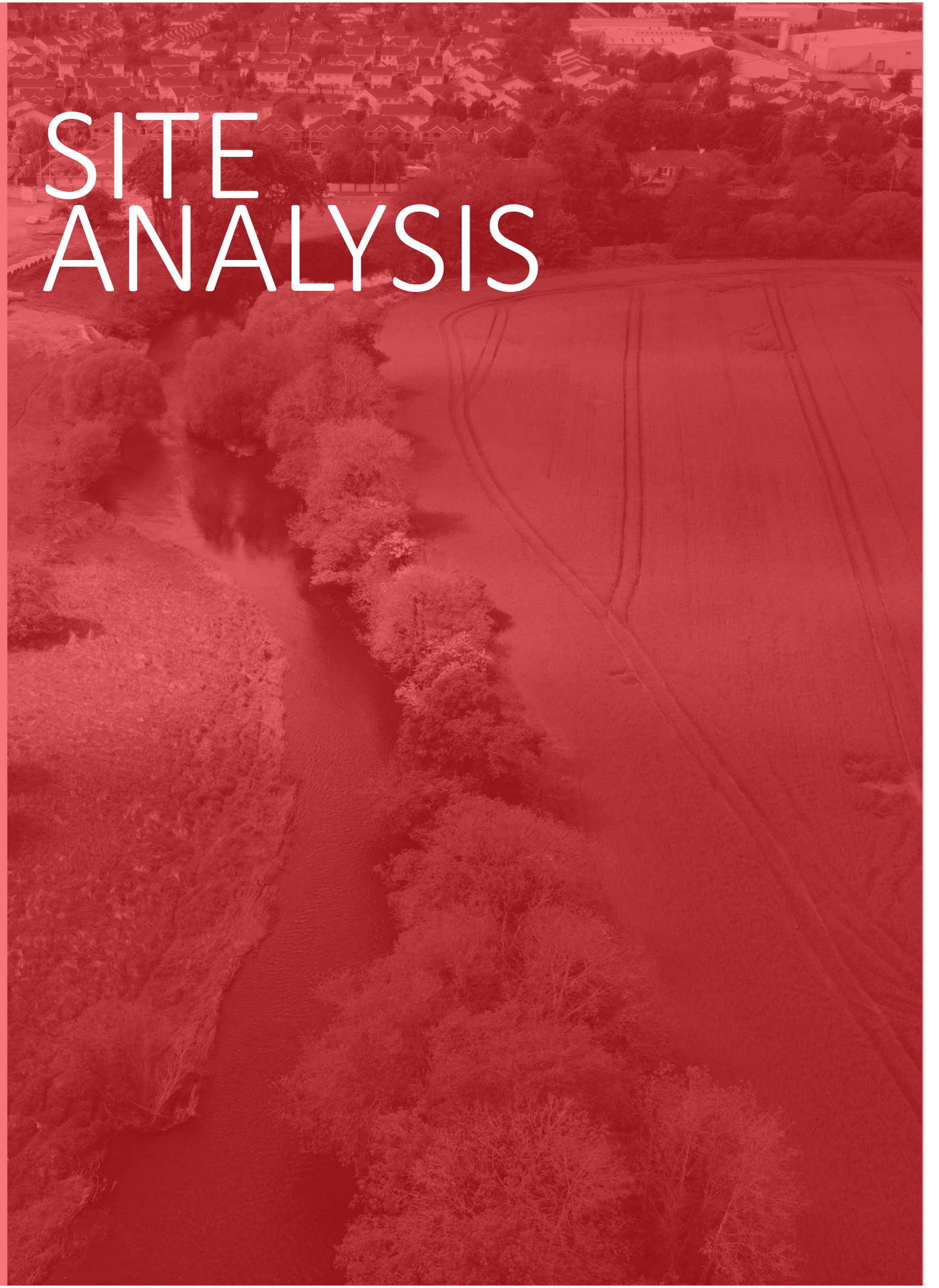
Issue 9

Landscape Development Report

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01 SITE ANALYSIS



01.1 EXISTING SITE CONDITIONS



SITE LOCATION

This subject site comprises the lands surrounding and including the dwellings of 'Greatconnell' and 'Valencia Lodge', Great Connell, Newbridge, Co. Kildare, Eircodes: W12 TW29 and W12 V382.

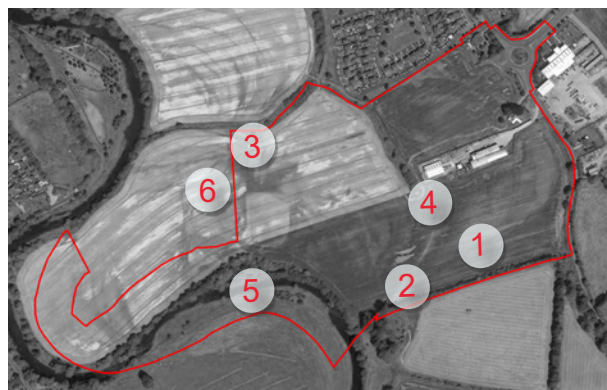
SITE DESCRIPTION

The subject site is irregular in shape and currently comprises of agricultural lands 2 dwellings and former agricultural buildings surrounded by fields with existing hedgerows as boundaries. It is accessed from the east from Great Connell Road. The development is bound to the north-east by a residential development and Great Connell Road along the eastern boundary. To the south-west the site is bound by the River Liffey. The topography of the lands varies with a fall northwards of approx. 1.9m (+86.18m to +88.05m). The site includes existing trees and hedgerows along existing field boundaries.

LEGEND

-  SITE BOUNDARY
-  WAYLEAVE TO ENG. DWG
-  GREAT CONNELL ROAD
-  EXISTING HEDGEROWS/TREES
-  RIVER LIFFEY
-  SUN PATH

01.2 SITE PHOTOGRAPHS



1 view looking north-east from southern boundary; **2** view looking south-west towards the River Liffey from centre of site; **3** view looking west to Wellesley Manor ; **4** view looking south-east; **5** View looking west along southern boundary; **6** view looking east along the River Liffey from western boundary.

1	2	3
4	5	6

01.3 OPEN SPACE TYPOLOGIES & EXISTING SITE BOUNDARIES



01.4 ACCESS AND CIRCULATION



Future connections to the surrounding lands are considered which include: connections along the north western boundary to Wellesley Manor (pedestrian and vehicular connection) and along the south- eastern boundary into the neighbouring lands (pedestrian, vehicular & cycle connections). Please refer to engineer's report for further information.








01.5 CONCEPT DESIGN & ACTIVITES



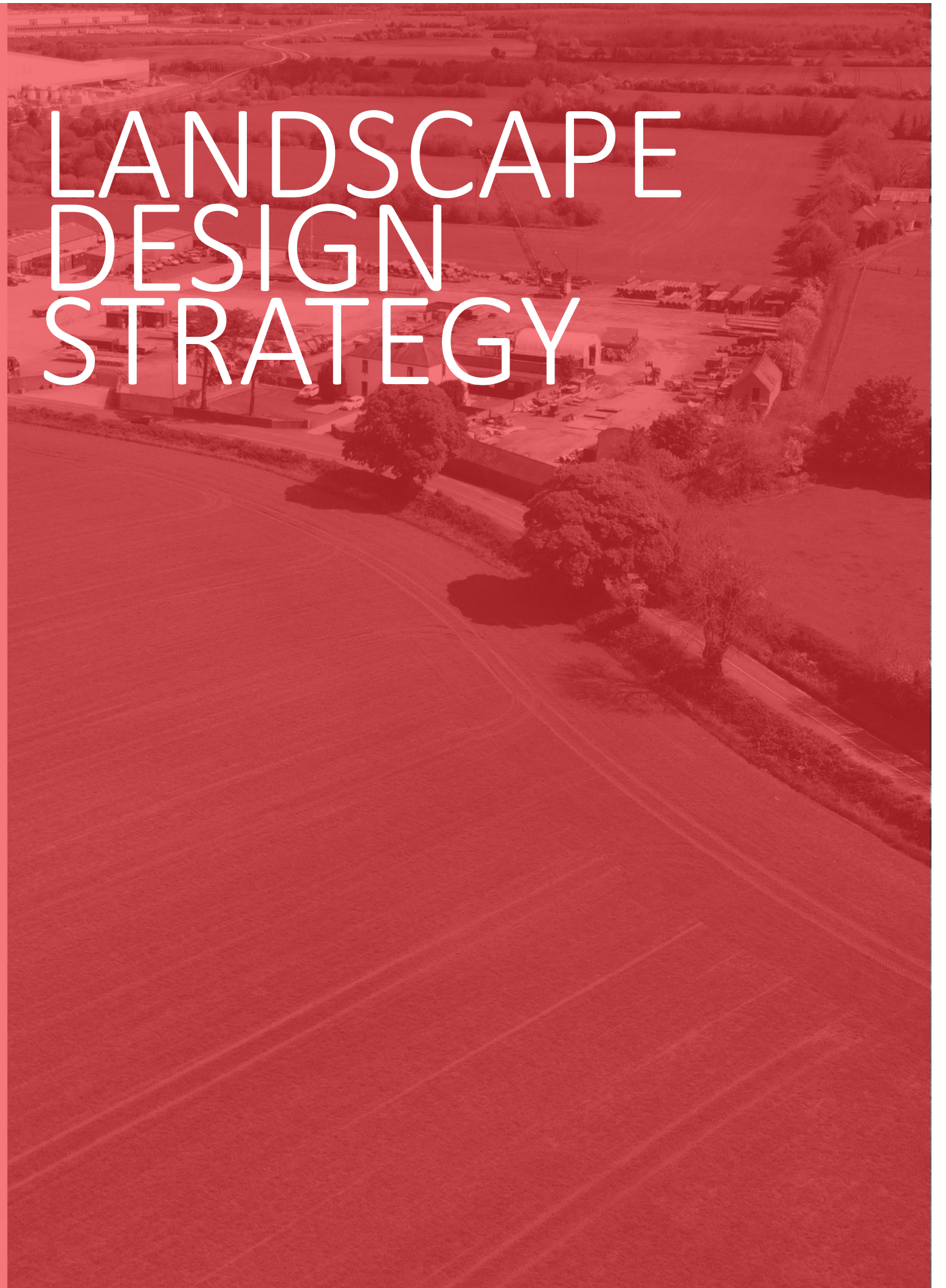
The public spaces are designed to incorporate allow for the following components which allow for a spectrum of uses and age groups as follows:

- Informal play spaces (suitable for unstructured play activities and social interaction)
- Kick-about area and informal kick-about area (active and structure play)
- Seating areas located to appeal to the sunny aspect and desired views (for sedentary activity)
- Natural play (for active play with age inclusive equipment 1-13 yrs. & +13 yrs.)
- Proposed native trees, maintained lawn and wildflower planting (nature activities)
- Ground modelling
- Existing trees and hedgerows retained (nature activities)
- Woodland Planting (nature activities)
- High quality paving materials and street furniture
- Walking, running and cycling trails
- Exercise stations (intended for age +13)
- Attenuation features

LEGEND

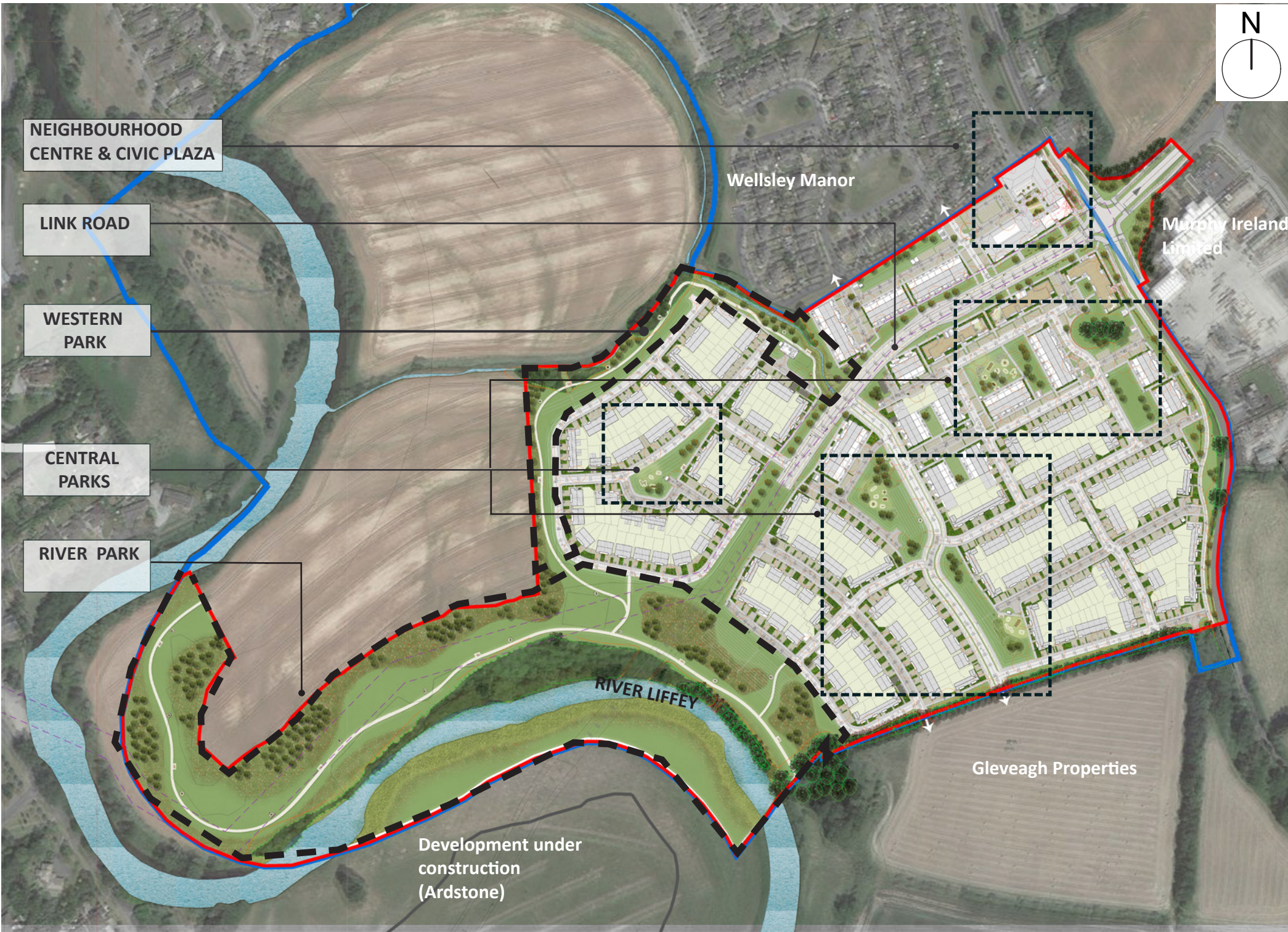
-  NATURAL PLAY
-  ACTIVE PLAY IN KICK-ABOUT AREA / INFORMAL KICK-ABOUT AREA
-  EXERCISE
-  PASSIVE RECREATION (WALKING, STROLLING & RUNNING) & CYCLING
-  SEDENTARY ZONE (SITTING AND RESTING)
-  UNSTRUCTURED PLAY AND SOCIAL INTERACTIONS
-  NATURE ACTIVITIES

02 LANDSCAPE DESIGN STRATEGY



02.1 LANDSCAPE DESIGN STRATEGY

PROPOSED LANDSCAPE ELEMENTS /GREEN INFRASTRUCTURE



The landscape incorporating Green Infrastructure (GI) is an important aspect of the character of the lands, which informed the urban structure of the plan. The design approach to the public realm within the subject lands is to produce a coherent and well considered design theme with a strong identity and distinctive sense of place that fosters a connection and attachment between existing and new residents and their surrounding environment. This will be achieved by creating a legible environment for people to live within and move through by using a hierarchy of spaces which include:

- Central Parks
- Western Park
- Local square/ Civic plaza
- River Park

LEGEND

	RED LINE BOUNDARY		RIVER LIFFEY
	10M WAYLEAVE (To Architect's DWG)		PROPOSED TREES/ MULTISTEM
	SITE PLAN TO ARCHITECT'S LAYOUT		PROPOSED TREES WITH ROOT BARRIER
	BITMAC SURFACE TO ACCESS ROAD TO ENG. SPEC.		EXISTING TREES RETAINED TO ARB. DRAWING
	PROPOSED CONCRETE FOOTPATH		ROOT PROTECTION AREA TO ARB. DRAWING
	PROPOSED HOME ZONE PERMEABLE PAVING TO ENG. SPEC.		EXISTING TREES REMOVED TO ARB. DRAWING
	PROPOSED PERMEABLE PAVING TO ENG. SPEC.		EXISTING HEDGE RETAINED TO ARB. DRAWING
	PROPOSED BICYCLE TRACK		EXISTING HEDGE REMOVED TO ARB. DRAWING
	PROPOSED BOUND GRAVEL / BITMAC PATH		PROPOSED HEDGE
	PROPOSED FRONT GARDENS		PROPOSED GROUND MODELLING
	PROPOSED LAWN AREA		PROPOSED NATURAL PLAY / EXERCISE EQUIPMENT
	PROPOSED SHRUB/ WILDFLOWER AREA		PROPOSED SEATING AREA
	PROPOSED REAR GARDENS		PROPOSED ATTENUATION TO ENG. DRAWING
	PROPOSED SAFE GRASS		PROPOSED SWALE TO ENG. DRAWING
	RIVER LIFFEY		PROPOSED PUBLIC LIGHTING TO ENGINEER'S LAYOUT

02.1 LANDSCAPE DESIGN STRATEGY

CENTRAL PARKS



The masterplan identifies several centrally located public spaces enclosed by residential blocks and human scale streets that relate strongly to the urban layout. The design philosophy of the public realm was to provide bold, contemporary but above all else robust public spaces that have the potential to provide a main focus both within the development as well as the immediate surrounding area.

The central spaces have been designed specifically for flexible use with a spectrum of age inclusive activities. Level changes were also a major consideration in the design of the spaces. The design successfully creates usable spaces while accommodating the surrounding road levels (for further information refer to Dwg 301 & 302). It was considered “optimum landscape” to incorporate:

- Informal play spaces (suitable for unstructured play activities and social interaction)
- Informal kick-about area (active and structure play)
- Seating areas located to appeal to the sunny aspect and desired views (for sedentary activity)
- Natural play (for active play with age inclusive equipment 1-13 yrs. & +13 yrs.)
- Proposed native trees
- Ground modelling
- Existing trees and hedgerows retained (nature activities)
- Walking, running and cycling trails
- Exercise stations (intended for age +13)
- Underground Attenuation.



02.1 LANDSCAPE DESIGN STRATEGY

WESTERN PARK



This park is developed along the western boundary of the lands. Existing hedgerows along the boundaries of this area will be retained, where achievable, ensuring the long-term integrity and character of same (Refer to Arborist Drawing). The design provides for a meandering pedestrian/cycle route with new tree planting and wildflower meadow to enhance biodiversity. Exercise equipment and seating areas will also be incorporated along the trail to direct users through the space (for further information refer to Dwg 303). This park will allow for:

- Informal play spaces (suitable for unstructured play activities and social interaction)
- Seating areas located to appeal to the sunny aspect and desired views (for sedentary activity)
- Existing trees and hedgerows retained (nature activities)
- Walking, running and cycling trails
- Exercise stations (intended for age +13)
- Proposed native trees, maintained lawn and wildflower planting (nature activities)
- Underground attenuation.



02.1 LANDSCAPE DESIGN STRATEGY

RIVER PARK



This park will provide a strategic new multi-functional recreational amenity incorporating GI, which will also provide a setting for biodiversity and water management (for further information refer to Dwg 303). The key components of the park includes:

- A pedestrian/cycle route connecting the plan lands with the existing/proposed public space network along the River Liffey,
- Provide the opportunity for passive recreation uses (walking, running and strolling),
- Enhancement of existing hedgerows with the provision of new areas of native urban forestry (suitable for nature activities),
- Kick- about Area for active and structure play,
- Seating areas (for sedentary activity)
- Exercise stations placed strategically along path.
- Incorporation of SuDs measures including flood compensation storage to engineer's design details.



02.1 LANDSCAPE DESIGN STRATEGY

EXERCISE TRAIL



The exercise trail connects the Western Park, River Park and the Central Park. The trail includes 19 no. exercise stations (See section 2.4 for schedule), seating areas , walking path and woodland planting.

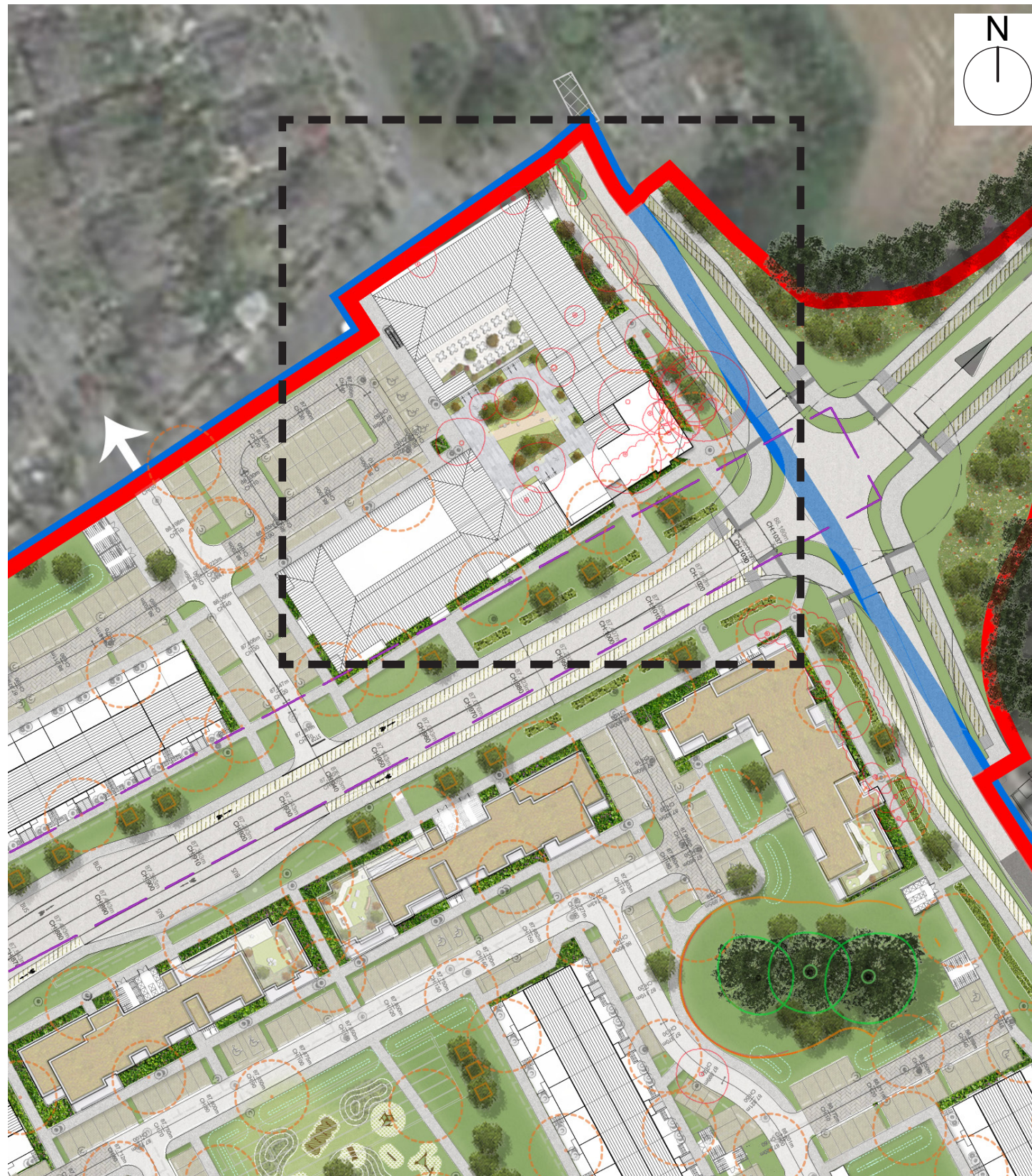


LEGEND

- Proposed exercise trail
- Proposed exercise stations
- Proposed seating areas

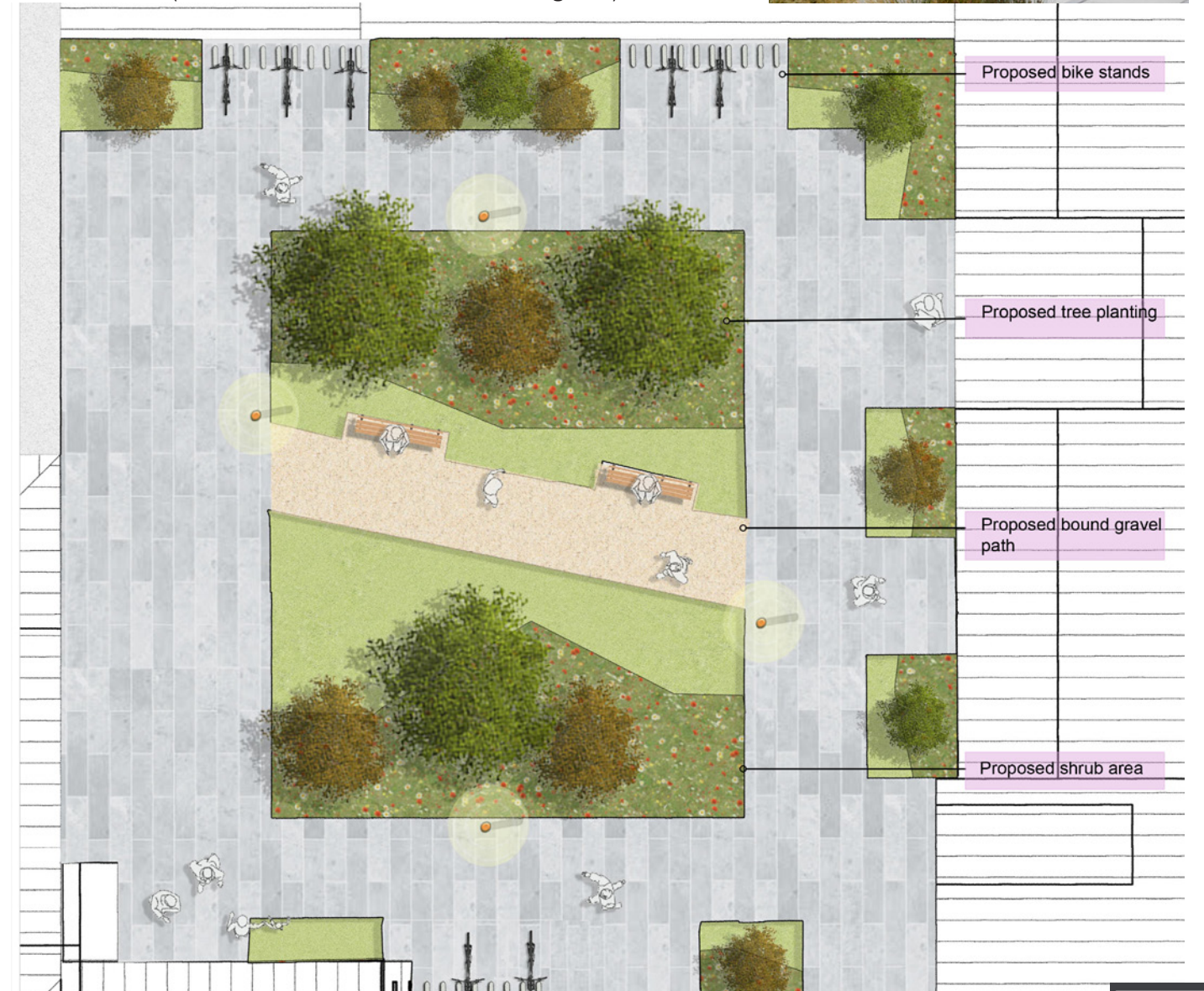
02.1 LANDSCAPE DESIGN STRATEGY

CIVIC PLAZA



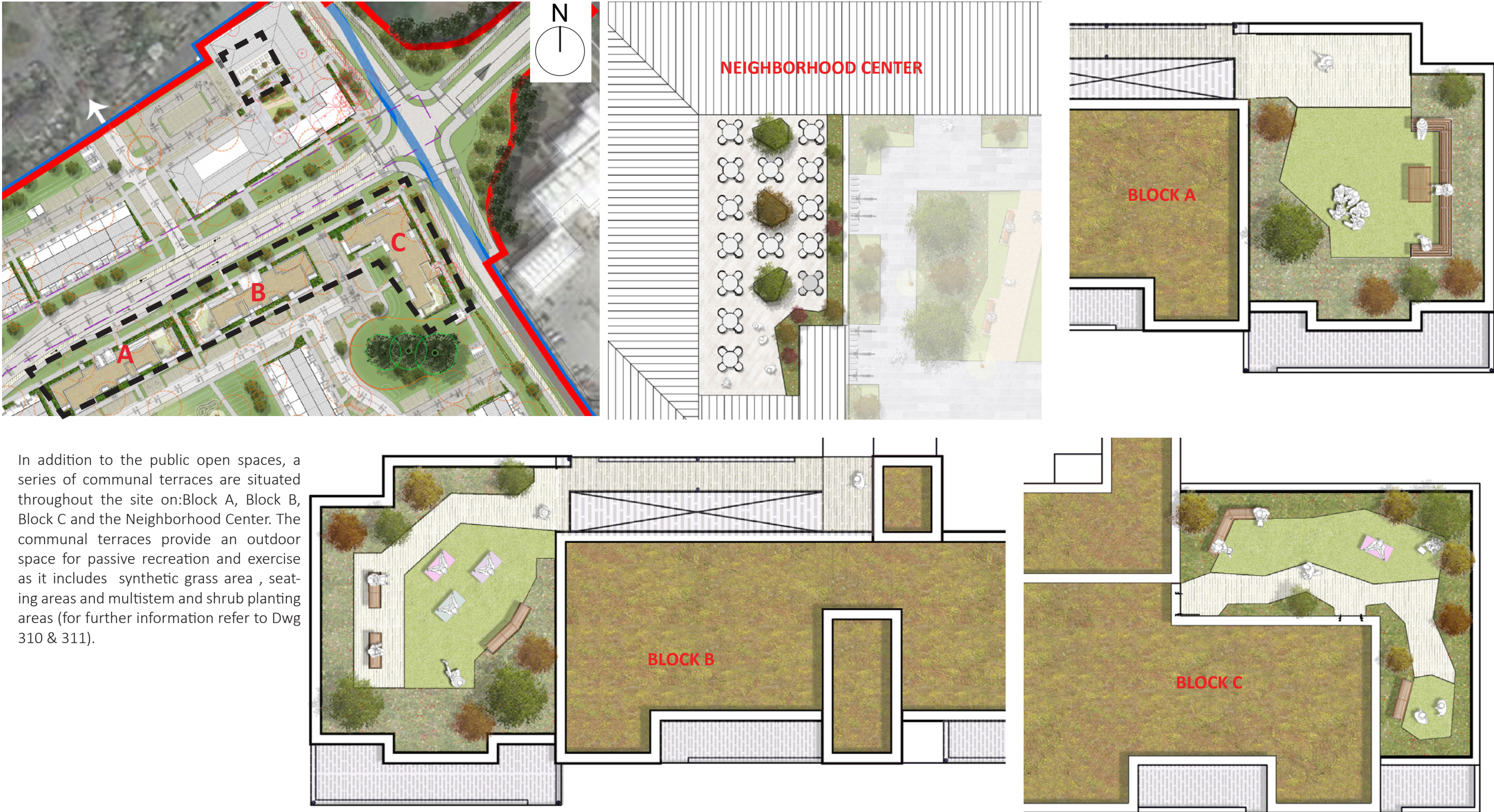
The neighbourhood centre is strategically located along the northern boundary of the plan lands. The civic plaza is located immediately adjacent to the proposed local centre and forms the main space and focus at the entrance to the plan lands. The proposed civic plaza provides a strong identity and distinctive sense of place at the entrance to the plan lands, as well as providing a flexible use space incorporating high quality materials. The civic plaza design provides for the following uses:

- Meeting place with seating areas in sheltered sunny locations
- Opportunity for weekend market/special local events
- Quality lighting to ensure safe night time environment
- Connectivity to neighbouring residential & commercial premises within the area (for further information refer to Dwg 310).



02.1 LANDSCAPE DESIGN STRATEGY

COMMUNAL TERRACES



In addition to the public open spaces, a series of communal terraces are situated throughout the site on:Block A, Block B, Block C and the Neighborhood Center. The communal terraces provide an outdoor space for passive recreation and exercise as it includes synthetic grass area , seating areas and multistem and shrub planting areas (for further information refer to Dwg 310 & 311).

02.2 PROPOSED MATERIALS

One of the primary aims of the design of the public spaces within the proposed development is to provide a scheme with a strong identity and distinctive sense of place, that fosters a connection and attachment between people and their surrounding environment. This will be achieved by creating a legible environment for people to live within and move through by using a hierarchy of materials (paving and street furniture) and planting to create different character areas and provide visual cues to how people may move through or use these spaces. While different paving materials and textures will be used to demarcate changes to levels, verges, paths and to guide the visually impaired, it is proposed that materials (e.g. paving, lighting, street furniture and tree planting) will be chosen from a limited palette to encourage visual cohesion within the scheme.



1- Proposed bound gravel finish to paths



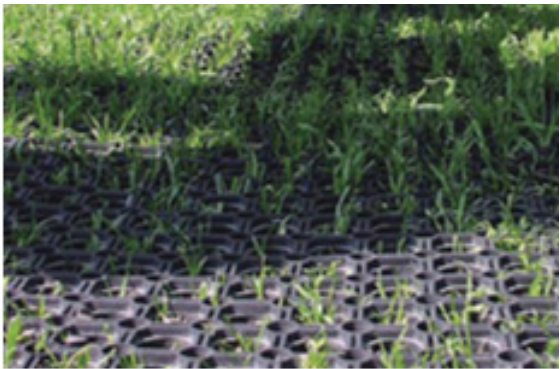
2- Proposed brushed concrete finish to footpaths



3- Proposed lighting columns to roads and public spaces to engineer's spec.



3- Proposed blister paving flags to pedestrian crossings



4- Proposed Safa grass to natural play elements



5- Proposed permeable paving to car parking spaces to eng. specification



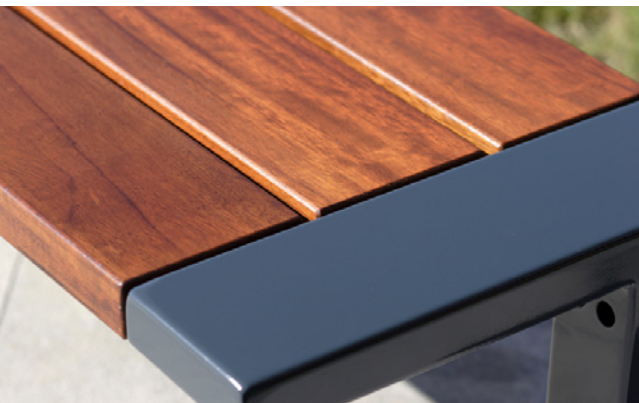
6- Proposed courduroy hazard warning paving flags to pedestrian crossovers



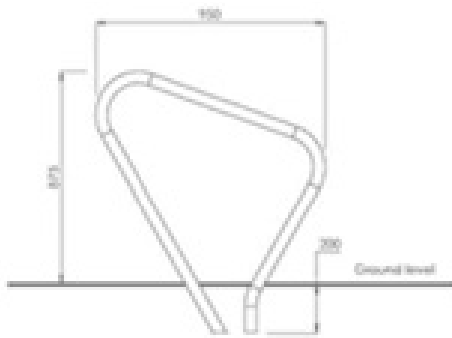
7- Proposed litter bins



7- Proposed bench seating : S64 Bench, Omos or similar approved



8- Proposed bicycle stands



9- Proposed coloured bitmac to cycle route to engineer's spec.

02.3 PLANTING SCHEDULE

Public & Communal Spaces

1554_ Indicative Planting Schedule to Communal and Public Spaces		
Name	Specification	Size
Supply and protect the following:		
All plant material to Landscape Architects approval		
Street Tree Planting		
Ac- Acer campestre ' Elsrijk'	RB	16-18 cm
Qp- Quercus petraea (where space allows)	RB	16-18 cm
Tree Planting to Open Space Areas		
Extra Heavy Standard Tree Planting		
Ac- Acer campestre	RB	14-16 cm
Bp- Betula pubescens	RB	14-16 cm
Pa- Prunus avium	RB	14-16 cm
Qb- Quercus robur	RB	14-16 cm
Qp- Quercus petraea	RB	14-16cm
large Conifer Planting		
Pn- Pinus nigra	RB	2-2.5m
Ps- Pinus sylvestris	RB	2-2.5m
Bp- Betula pendula	RB	14-16cm
Multi Stems		
Al- Amelanchier lamarckii	RB,fthd	MS 2-2.50 m high
Ap - Acer palmatum	RB,fthd	MS 2-2.50 m high
Betula utilis jacquemontii 'Snow Queen'	RB,fthd	MS 2-2.50 m high
Proposed Hedge to site boundary (where applicable)		
Ac- Acer campestre	5/l.m	BR, fthd,120-150cm
Cm- Crataegus monogyna	5/l.m	BR, fthd,120-150cm
Ia- Ilex aquifolium	5/l.m	BR, fthd,120-150cm
Woodland Tree Planting		
Standard Tree Planting (@ 1.0m c/c)		
Ac- Acer campestre	1.0/sq.m	2xtr, BR, 8-10 cm girth
Ah- Aesculus hippocastanum	1.0/sq.m	2xtr, BR, 8-10 cm girth
Fs- Fagus sylvatica	1.0/sq.m	2xtr, BR, 8-10 cm girth
Pa- Prunus avium	1.0/sq.m	2xtr, BR, 8-10 cm girth
Qr- Quercus robur	1.0/sq.m	2xtr, BR, 8-10 cm girth
Whips/Transplants Planting (@ 1.25m c/c)		
Ac- Acer campestre	1.25/sq.m	BR,fthd, 150-180cm high
Ah- Aesculus hippocastanum	1.25/sq.m	BR,fthd, 150-180cm high
Cm- Crataegus monogyna	1.25/sq.m	BR,fthd, 90-120cm high
Fs- Fagus sylvatica	1.25/sq.m	BR,fthd, 150-180cm high
Ia- Ilex aquifolium	1.25/sq.m	RB,fthd, 60-90cm high
Ps- Pinus sylvestris	1.25/sq.m	RB,fthd, 60-90cm high
Pa- Prunus avium	1.25/sq.m	BR,fthd, 150-180cm high
Qr- Quercus robur	1.25/sq.m	BR,fthd,150-180cm high

The inception of the approach to the scheme is to retain existing trees and hedge-rows where possible (refer to Arborist report) and supplement them where necessary. It is proposed to use native tree planting including Oak, Acer, and Prunus. In addition, smaller specimen trees /multi-stem shrubs will also be used along with wildflower and herbaceous planting which benefit pollinators and reinforce the biodiversity within the development (refer to planting schedule & DWG 308).

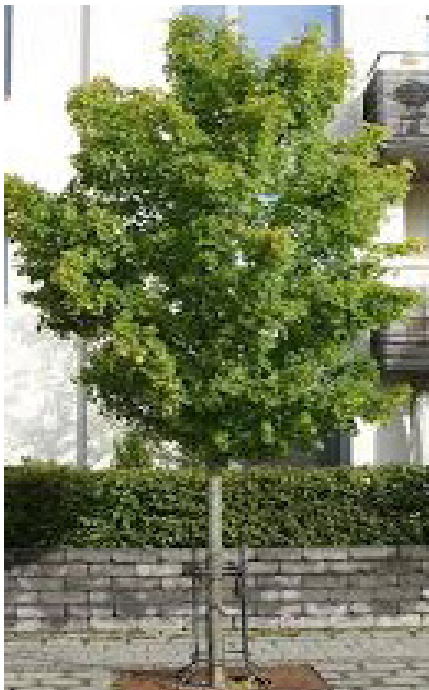
Shrub and Herbaceous Planting		
Alchemilla alpina		2lt; C
Anemone 'Honorine Jobert'		2lt; C
Asplenium scol. 'Angustifolia'		2lt; C
Calamagrostis 'Karl Foerster'		3lt; C
Cornus alba 'Wintersun'		60-80cm; BR
Crocsmia ' Lucifer '		3lt; C
Digitalis grandiflora 'Carillon'		3lt; C
Echinacea purpurea 'White Swan'		3lt; C
Helleborus or. 'Montsegur'		3lt; C
Helleborus orientalis (white)		3lt; C
Libertia grandiflora		3lt; C
Liriope muscari 'Monroe White'		3lt; C
Luzula nivea		3lt; C
Miscanthus sinensis 'Gracillimus'		3lt; C
Panicum virgatum 'Heavy Metal'		3lt; C
Pennisetum alopecuroides 'Hameln'		3lt; C
Perovskia atriplicifolia 'Blue Spire'		3lt; C
Persicaria amp. 'Fat Domino'		3lt; C
Polystichum set. 'Herrenhausen'		3lt; C
Rosa 'Flower Carpet' (whilte)		3lt; C
Rudbeckia f. v. sul. 'Goldsturm'		3lt; C
Salvia nem. 'Caradonna'		3lt; C
Salvia nem. 'Schneehugel'		3lt; C
Tiarella cordifolia		3lt; C
Verbena bonariensis 'Lollipop'		3lt; C
Stipa tenuissima 'Ponytails'		3lt; C
Amenity grass areas (to future specification)		
		25 g/sq.m.
Wildflowe Mix (to future specification)		



Quercus petraea



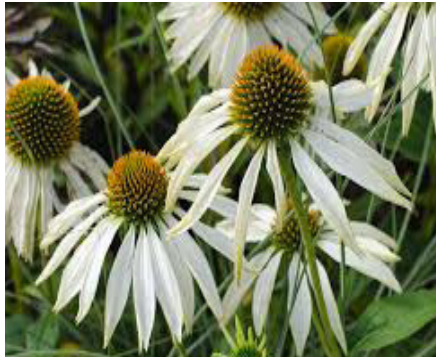
Amenlanchier lamarckii



Acer campestre



Prunus avium



Echinacea purpurea



Salvia nem.

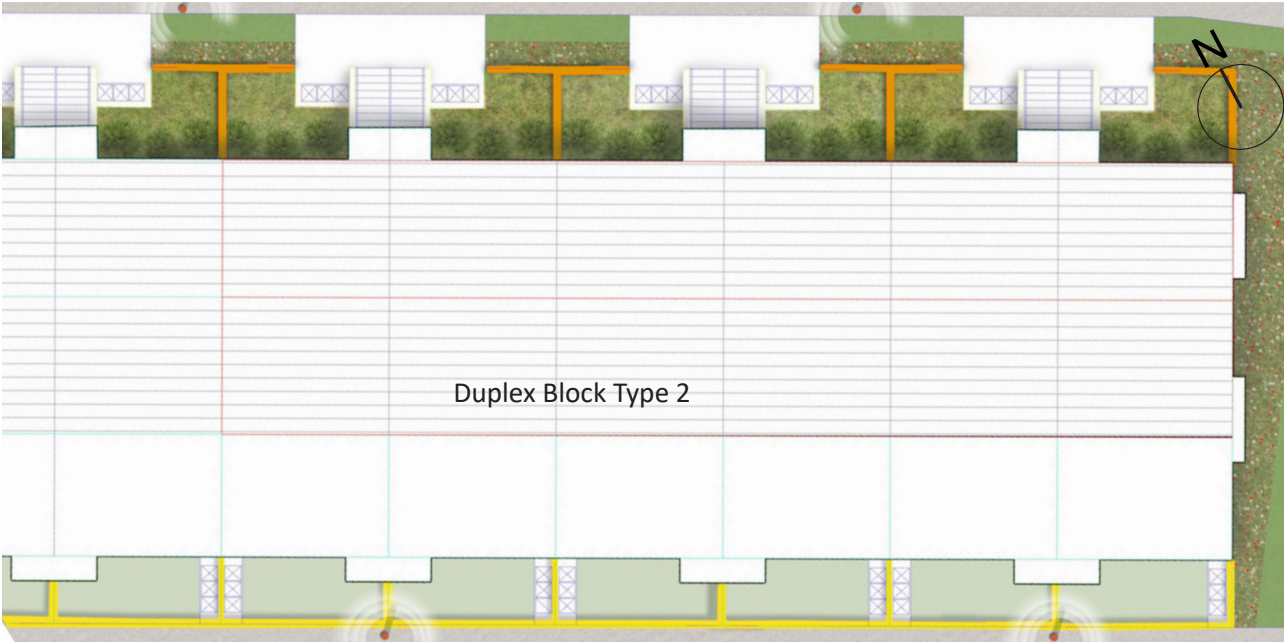
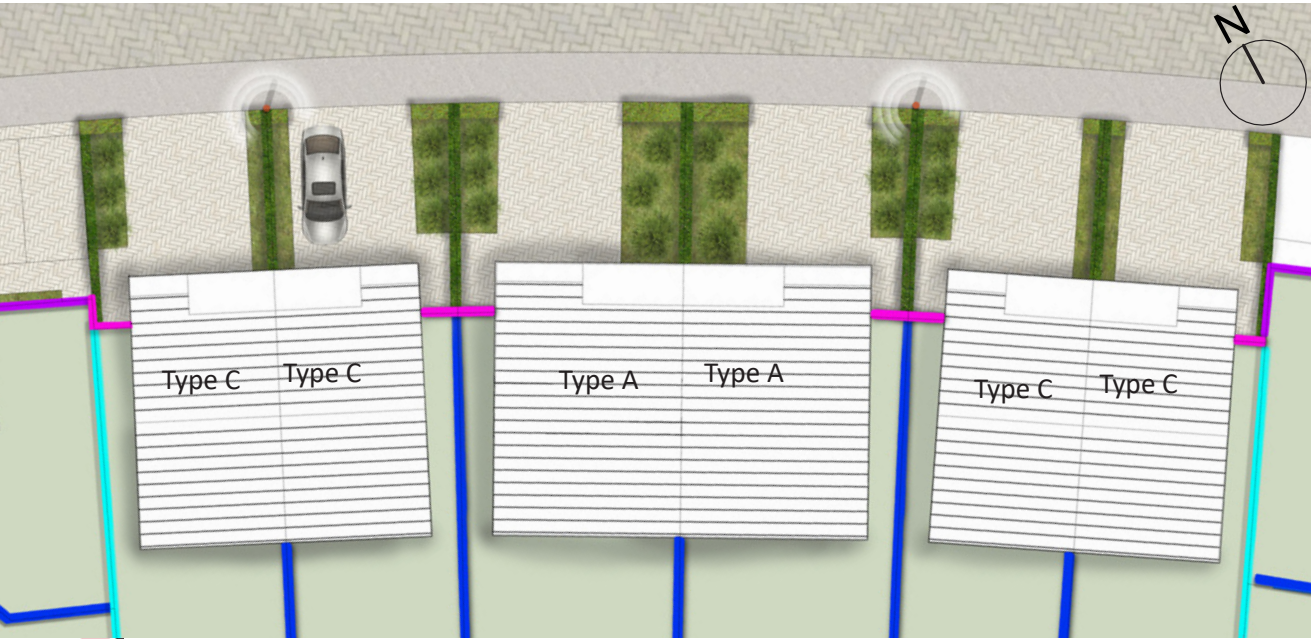
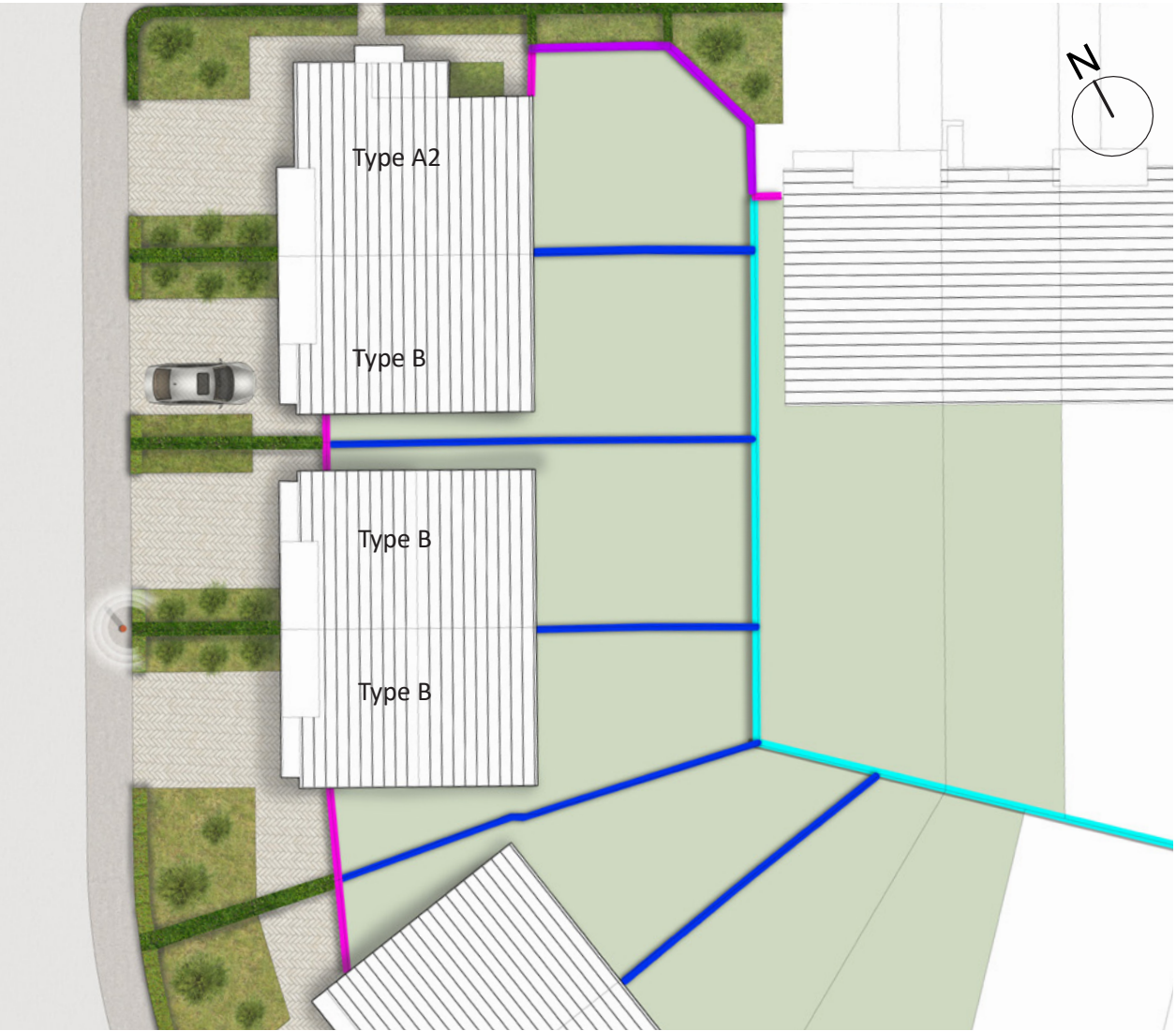


Wild flower planting

02.3 PLANTING SCHEDULE

Private Areas

1554_Front Garden_Planting Schedule				
Ref.	Qty.	Name	Density	Size
Supply and Protect the following trees (Rootballed unless specified)				
All Plant materials to Landscape Architects approval				
Specimen Shrubs				
SS01		Arbutus unedo	as shown	20 ltr.cg
SS02		Nandina domestica	as shown	20 ltr.cg
SS03		Cistus x hybridus	as shown	5 ltr.cg
SS04		Abelia x grandiflora	as shown	5 ltr.cg
SS05		Fuchsia 'Mrs Popple'	as shown	5 ltr.cg
SS06		Hydrangea paniculata 'Limelight'	as shown	5 ltr.cg
Clipped Shrub (Single row, 500 mm centers)				
CS01		Buxus sempervirens	2/l.m.	5 ltr.cg
Hedges (Double Staggered Row)				
H01		Prunus lusitanica	5/l.m	RB,120-150mm
Grasses				
G01		Chionocloa falvicans	5/sq.m.	2 ltr.cg
Perennials				
Option A (sunny aspect)				
P01		Achillea moonshine	5/sq.m.	2 ltr.cg
P02		Anthemmis buxtons variety	5/sq.m.	2 ltr.cg
P03		Campanula glomerata 'Superba'	5/sq.m.	2 ltr.cg
P04		Hellenium 'The Bishop'	5/sq.m.	2 ltr.cg
Option B (shaded aspect)				
P05		Anemone x hybrida c.vars	5/sq.m.	2 ltr.cg
P06		Anthemmis buxtons variety	5/sq.m.	2 ltr.cg
P07		Digitalis purpurea 'Dalmation white'	5/sq.m.	2 ltr.cg
P08		Astrantia 'Buckland'	5/sq.m.	2 ltr.cg
Note:				
All tree material must be accompanied by an Irish Provenance Certification				



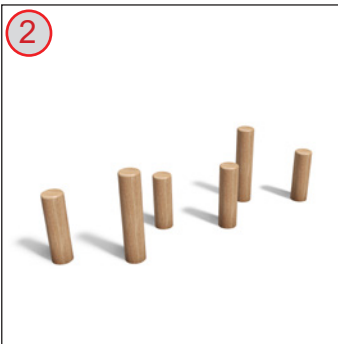
02.4 PROPOSED NATURAL PLAY & EXERCISE EQUIPMENT

Natural play equipment and exercise stations are proposed within the public spaces. These elements are situated strategically to assure passive surveillance from the surrounding housing units. The section below outlines play and exercise equipment which may included the following :

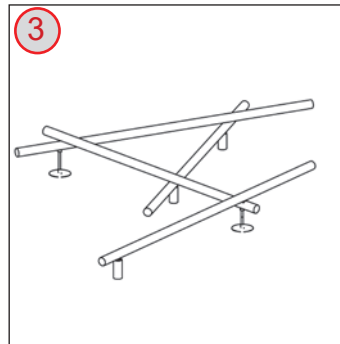
Proposed natural play equipment



1- Balance Beam - 8061276 - 3-12 yrs - HAGS



2- Balancing Wooden Posts - 8061278 - 3-12 yrs - HAGS



3- Jackstraw Seesaw - 650600 - 5+ yrs - Richter Spielgerate



4- Double Overhead Ladder Robinia - FRO213 - 13+ yrs - Kompan



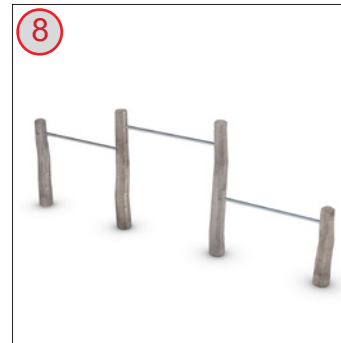
5- Parallel Bars - FSW201 - 13+ yrs - Kompan



6- Stretch Station - FSW223 - 13+ yrs - Kompan



7- Riara - 8038418 - 3-12 yrs - HAGS



8- Kion - 8066335 - 3-12 yrs - HAGS



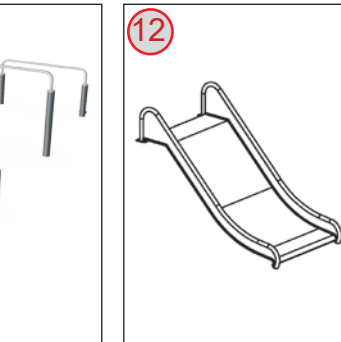
9- Stilts - NRO806 - 3+ yrs - Kompan



10- Triple Balance Beam - NRO804 - 3-12 yrs - Kompan



11- Over under - FSW214 - 13+ yrs - Kompan



12- Slide - 363300 - 1-3 yrs - Kompan

Proposed exercise equipment (suitable for +13 yrs.)



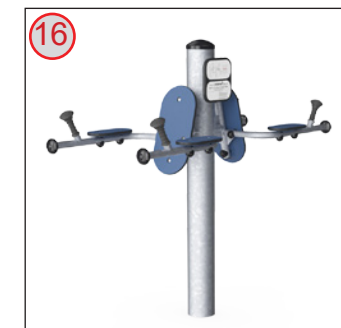
13- Chest Press - FST10400 - Kompan



14- Flex Wheel - FSW226 - Kompan



15- Hand Bike - KPX130 - Kompan



16- Push Up Bars - KPX126 - Kompan



17- Upright Row & Press Down - FST10500 - Kompan



18- Cross Trainer - KPX125 - Kompan



19- Sit Up Bench - KPX121 - Kompan



20- Free Runner - KPX120 - Kompan



21- Power Bike - KPX129 - Kompan



22- Double Chest Press - KPX131 - Kompan



23- Triple Bars - KPX132 - Kompan



24- Body Flexer & Upperbody Trainer - KPX224 - Kompan



25- Balance Station - FSW227 - Kompan



26- Leg Lift & Pull Up - FSW238 - Kompan

1554 Play elements and Exercise stations Schedule				
#	QUA.	Play element & exercise equipment	Supplier	Code
1	2	Balance Beam	HAGS	8061276
2	4	Balancing Wooden Posts	HAGS	8061278
3	2	Jackstraw Seesaw	Richter	650600
4	1	Double Overhead Ladder Robinia	Kompan	FRO213
5	2	Parallel Bars	Kompan	FSW201
6	2	Stretch Station	Kompan	FSW223
7	2	Riara	HAGS	8038418
8	1	Kion	HAGS	8066335
9	1	Stilts	Kompan	NRO806
10	1	Triple Balance Beam	Kompan	NRO804
11	2	Over Under	Kompan	FSW214
12	1	Slide	Richter	363300
Exercise station along trail				
13	1	Chest Press	Kompan	FST10400
14	2	Flex Wheel	Kompan	FSW226
15	1	Hand Bike	Kompan	KPX130
16	1	Push Up Bars	Kompan	KPX126
17	2	Upright Row & Press Down	Kompan	FST10500
18	1	Cross Trainer	Kompan	KPX125
19	2	Sit Up Bench	Kompan	KPX121
20	1	Free Runner	Kompan	KPX120
21	2	Power Bike	Kompan	KPX129
22	1	Double Chest Press	Kompan	KPX131
23	2	Triple Bars	Kompan	KPX132
24	1	Body Flexer & Upperbody Trainer	Kompan	KPX224
25	1	Balance Station	Kompan	FSW227
26	1	Leg Lift & Pull Up	Kompan	FSW238

Landscape Specification: OUTLINE OF OPERATIONS

Ground preparation will precede planting and will include weed clearance and amelioration where necessary. Intensive landscape aftercare for each area will run for 12 months from the practical completion date using contact herbicides and hand weeding. There will be a period of 12 months defects liability on all planting with plant failures being replaced in the following planting season. Herbicide and Pesticide usage must be carried out in accordance with:
S.I. 155 of 2012 - European Communities (Sustainable Use of Pesticides) Regulations 2012
S.I. 159 of 2012 - European Communities (Plant Protection Products) Regulations 2012

PLANTING

Materials

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection. Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of the following sections of B.S. 3936, Specification for Nursery Stock, where applicable:

Part 1 - 1992:	Specification for trees and shrubs
Part 2 – 1990:	Specification for roses
Part 4 – 2007:	Specification for forest trees, poplars and willows
Part 7 - 1989:	Specification for bedding plants
Part 9 - 1998:	Specification for bulbs, corms and tubers
Part 10 - 1990:	Specification for ground cover plants

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

Except for any cultivated varieties or exotic species which do not set viable seed in Ireland, all plants shall have been grown from seed.

The Contractor will be deemed to have advised his suppliers of the relevant sections of this specification, including all protection required, at the time of enquiry and shall in all cases be liable to replace materials brought on site which are not in accordance with this specification.

Species

All plants supplied shall be exactly true to name as shown in the plant schedules. Unless stipulated, varieties with variegated or otherwise coloured leaves will not be accepted, and any plant found to be of this type upon leafing out shall be replaced by the Contractor at his own expense.

Bundles of plants shall be marked in conformity with the relevant part of B.S. 3936. The contractor shall replace any plants that are found not to conform to the labels. An inspection of plants shall be undertaken prior to planting to ensure quality control.

Extra Heavy Standard and Standard Trees

Extra Heavy Standard trees shall have a total height of 4.0 to 4.5 metres and a girth of 14-16 cm at 1m above ground level. Standard trees shall have a clear stem 1.70 m to 1.85 m in height from ground level to the lowest branch, a minimum girth of 8 cm measured at 1m above ground level and a total height of 2.5 to 3.0 metres.

Trees shall have a sturdy, reasonably straight stem, a well defined and upright central leader, with branches growing out of the stem with reasonable symmetry, or a well balanced branching head according to the Schedule. The crown and root systems shall be well formed and in keeping with the nature of the species. Roots shall be in reasonable balance with the crown and shall be conducive to successful transplantation.

Trees shall be supplied bare rooted unless otherwise specified. They shall have been regularly undercut or transplanted. They shall have been lifted carefully to avoid tearing of major roots and to preserve a substantial proportion of smaller and fibrous roots. Trees shall have been grown on their own roots. Budded or grafted trees will be rejected.

Transplants

Transplants shall not be less than three years old, and shall have been transplanted at least once. Trees of species not listed in B.S. 3936: Part 4: 1984 shall be sturdy, with a balanced root and shoot development. Sizes shall range from 600-900 and 900-1200 mm.

Trees shall be well furnished with lateral and fibrous roots, and shall be lifted without severance of major roots. Roots shall be of the habit normal for the species.

Salix shall have been stumped and transplanted at the end of the first year in the nursery.

Shrubs

Shrubs shall be of the minimum size specified in the schedules, with several stems originating from or near ground level and of reasonable bushiness, healthy, well grown, and with a good root system. Pots or containers shall be as scheduled. Plants shall not be pot bound, nor with roots deformed or restricted. Bare root material will only be accepted where specified.

Herbicides

Chemical use such as herbicides, pesticides and fertilizers will need require prior approval by the project ecologist and landscape architect. Where species is deep rooted and cannot be removed manually or is persistent it should be treated with localised and spot application of hormone weed killers.

Weedkiller Application

All weedkiller handling and application should be carried out in accordance with the manufacturer's instructions, COSHH Regulations, using the necessary PPE and by trained personnel only.

Bulky Organic Manure/ Mushroom Compost

Bulky organic manure shall consist either of spent peat compost, mushroom compost, as described above, spent hops, or of well rotted farm manure. Farm manure shall consist of predominantly of faecal matter and shall be free of loose, dry straw and of undigested hay. Manure shall be free of surplus liquid effluent. This shall be used on mounds only. Well spent mushroom compost shall be used in all ornamental planting areas.

Fertilisers

Controlled release fertiliser N:P:K 15:9:11 plus trace elements - Osmocote plus or similar approved applied at specified rates.

Fertiliser shall be supplied in sealed bags or containers bearing the manufacturer's name, the net weight and analysis.

Stakes for Standard Trees

Stakes shall be of peeled larch, pine or Douglas fir, preserved with water-borne copper-chrome-arsenic to I.S. 131, to a net dry salt retention of 5.3 kg. per cubic metre of timber. Stakes shall be turned, and painted one end. Sizes shall be as follows:-

for extra heavy standard trees: 2700 x 75 mm dia.
for standard trees: 2700 x 75 mm dia.

Set stakes vertically in the pit, to the western side of the tree station, and drive before planting. Drive stake with a drive-all, wooden maul or cast-iron headed mell, not with a sledge hammer.

Tree Ties

Tree ties shall be of rubber, P.V.C. or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie.

Ties shall be min. 40 mm. wide for standard trees. Provide a simple collar, free of rough or serrated edges, to prevent chafing. Provide for subsequent adjustment of the tie either by means of a buckle (nail tie to stake immediately behind it) or by leaving heads of securing nails slightly proud, to permit easy extraction and repositioning. All nails shall be galvanised.

Protection

The interval between the lifting of stock at the nursery and planting on site is to be kept to an absolute minimum. Plants shall be protected from drying out and from damage in transport. All stock awaiting planting on site shall be stored in a sheltered place protected from wind and frost, from drying out and from pilfering. Bare rooted plants not immediately required shall be heeled-in in a prepared trench, the bundles of plants first having being opened, the plants separated and each group separately heeled-in and clearly labelled. The roots shall be covered with moist peat or soil and shall be kept moist until planted. Pots shall not be removed until plants have been carried to their planting station. Plants packed in polythene must be stored in shade.

All forest transplants and bare root shrubs shall be wrapped in polythene from the time of lifting to conserve moisture. Except when heeled-in, they shall be protected in polythene at all times until planted into their final position on site.

Plants shall be handled with care at all times, including lifting in and despatch from the nursery. Plants or bundles of plants shall not be tossed, dropped or subjected to any stress likely to break fine roots.

Damage

Any roots damaged during lifting or transport shall be pruned to sound growth before planting. On completion of planting any broken branches shall be pruned.

Vine Weevil

Any plants infected with Vine weevil will be rejected

Setting Out

Setting out shall be from figured dimensions where indicated, and otherwise by scaling.

Transplants shall be planted at the spacings indicated, in staggered rows.

Transplants in mixtures shall be planted at the spacings indicated, in staggered rows or at random according to instructions on the contract drawings. Species shall be planted in groups in each area. Set out groups avoiding obvious repetition, regularity, and single lines of one species.

Shrubs and ground covers planted in mass shall be at the spacing indicated on the drawings. Shrubs shall not generally be planted closer to a kerb or to the edge of a planting area than a distance equal to half the spacing indicated for that species.

Ripping

Rip all disturbed ground a minimum of 600 mm deep with a subsoiler approved by the Landscape Architect in two transverse directions.

Topsoiling

Excavate for shrub beds and hedge trenches to 400 mm below finished levels. Dispose of material to tip off site or to areas of filling on site as directed by the Landscape Architect. Break up base of beds and trenches min. 150 mm deep. Remove topsoil from areas to be sown with wild-flower mix.

Decompact base of planting bed to allow drainage.

Load and carry topsoil from stockpiles on site, and backfill beds/trenches in layers each not more than 150 mm deep, lightly consolidating each as the work proceeds. Leave area slightly mounded, to allow for settlement.

Incorporate ameliorant and fertiliser, as specified.

Site Preparation

Weedkilling for the below areas – herbicide selection and usage will need to be approved by the project ecologist and landscape architect. prior to works taking place onsite.

Preliminary Weedkilling

Transplants: Weedkill full ground area. Apply a first treatment before 15th July, and a second not later

than 15th September to kill regrowth.

Hedge Trench: Weedkill. Excavate trench 600 x 400 mm. Add ameliorants as follows, incorporate evenly into excavated material, and backfill:-

Organic Manure	:	75 mm deep
Osmocote plus	:	70 gm/m

Shrub Planting: Weedkill. Spread over all planting areas:-

Organic Manure	:	50 mm deep
Osmocote plus	:	75 gm/msq

Standard and Selected Standard Tree Planting

Excavate tree pits to 0.5 cubic metres volume (1.0 m diameter x 60 cm deep). The base of the pit shall be broken up to a depth of 15 cm and glazed sides roughened. Remove subsoil, stones and rubbish to tip on site as directed by the Architect/Engineer. Supply and drive the stake.

For planting in areas of made up ground, load and carry topsoil from stockpile on site. In undisturbed ground, backfill with excavated material. Mix the following ameliorants evenly throughout the topsoil while it is stacked beside the pit. (Quantities are calculated for a pit of the specified dimensions):-

Organic Manure:	0.047 cubic m (equivalent to manure 6 cm deep over 1 m dia of tree pit).
Osmocote plus:	250 gm

Trees shall be planted at the same depth as in nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planting upright. The roots shall be spread to take up their normal disposition. Fit tie. Clean a neat circle 1000 mm dia. of all grass.

Planting of Shrubs and C.G. Transplants

Remove all plastic and non-degradable wrappings and containers before planting. Make four vertical cuts with a sharp knife on the quadrants through the edge of C.G. rootballs to sever girdling roots. Excavate hole to min. 10 cm greater diameter than the root spread, and to a depth to allow planting to same depth as in the nursery. Spread out roots of bare root species. Backfill in layers of not more than 10 cm, firming each layer and on completion.

Replacements

The planting will be inspected in September following planting. Any tree or shrub found to have died from any cause except as provided below or the work of other contractors shall be replaced by the contractor at his own expense. Replacement planting shall conform in all respects with this Specification, including all specified excavation, provision and incorporation of all fertilisers and ameliorants, and weedkiller treatments.

Failures will not be charged to the Contractor in the following cases:-

- Damage by hares or rabbits, where not protected by fencing or shelters.
- Failure solely due to prolonged dry weather, except in where the contractor will be responsible for watering.
- 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 Contractor if the scheduled aftercare operations have not been carried out as programmed.

GRASS SEEDING

Native Grass/ wildflower Mix (50mm depth topsoil)

Seed mix selection

It is important that the correct plant species are selected that are adapted to the local site conditions and resemble the semi-natural plant communities of the local area. The plant species must be matched to soil type (pH), fertility, hydrology and topography. The Contractor shall provide the Landscape Architect with a list of the proposed native grass/ wildflower mix along with the proposed supplier for approval, a minimum of 2 weeks prior to seeding.

Ground preparation

The soil must be prepared for seed sowing to create open areas for the seed to germinate. When creating a native meadow from scratch the aim is to produce a firm weed-free tilth, through soil cultivation, to promote healthy germination.

To remove docks and thistles, nettles and weed grasses, the site shall be treated with approved herbicide (following the manufacturers instructions) prior to seed bed cultivation. Several applications may be required after further cultivation and to remove weed flushes.

Post Emergence Weedkiller

‘Actrilawn 10’ by May and Baker Ltd., used in accordance with the manufacturer’s instructions.

Apply ‘Actrilawn’ when grasses have reached the two-leaf stage or beyond and when seedlings have emerged and have reached cotyledon or two-leaf stage (approx. 4 weeks after sowing). Do not mow within 7 days of treatment. Do not apply during drought. Apply on a fine, still, warm day.

Machinery

All machinery shall be in good and serviceable condition. Harrows and cultivators shall have their full complement of tines, which shall be sharp, effective, and set to give the specified depth of cultivation. Mowers shall be sharp and evenly set to the specified height, and shall in use avoid pulling or laying the sward.

Tractors for use in ripping shall be four-wheel drive or tracked. All tractors shall be fitted with position control to ensure even cultivation, at the minimum specified depth.

Weather

All work to soil shall be carried out in dry weather and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction by tractors.

Seeding shall be carried out in the fine, still weather. Seed shall not be permitted to fall onto hard surfaces or into planting areas. Any grass germinating there shall immediately be treated with a total weedkiller at the Contractor’s expense.

Weedkilling

Application: Killing existing grass pre-seeding, and killing weeds germinating in re-spread topsoil. (For seeding from mid-August onwards, apply not later than 31st July).

Cultivations

Cultivate in transverse directions by disc or tine harrows and/or rotary cultivators, to the minimum depth specified in the operations schedule. Remove weeds and roots, metal items and rubbish. Produce a tilth as follows; Reinstatement areas 50mm and quality areas/verges 50mm and pick off stones and debris over that size.

If rotary cultivators are used, the ratio of tractor speed to tine speed shall be sufficient to avoid smearing at the base of the cultivation.

Final Grading

During cultivations, grade with a blade, lute or grader, to produce even, flowing surfaces, free from local humps and depressions.

Finishes

Topsoil shall stand 30 mm proud of manholes, paths and kerbs after cultivation and firming.

Sowing

Providing a good tilth can be prepared the optimal time for seed sowing is in late summer/early autumn, which means the seeds are not exposed to rising soil temperatures but will be exposed to cold moist temperatures over winter, which can help break dormancy of some species. If sown too late in autumn seedlings may be killed off by frosts. The months of March/April can also be suitable for sowing in areas of land that are prone to winter flooding.

- a. Mix seed - regularly mix to ensure even species distribution
- b. Surface broadcast – with a fertilizer spreader
- c. Rate – 3-4g/m², 10-20kg/ha 80:20 grasses: wildflowers, 0.5 - 1.0g/m²/2.5-10kg/ha pure wildflower mixtures. Seeding rates depend on soil fertility and wildflower specification.
- d. Sand - bulk up small seeding rates with sand or sawdust
- f. Ring Roller - use Cambridge Roller to firm seed bed or use cattle to tread in seed

Summary of ground preparation

- a. Treat existing vegetation with herbicide (as above)
- b. Shallow cultivate site with a rotovator and roll to consolidate ground to keep in moisture
- c. Harrow or treat weed re-growth
- d. Power harrow to create fine surface tilth
- e. Final spray with approved herbicide, if required
- f. Surface sow the seed and roll

Amenity grass (150mm depth topsoil)

Seed Mixture

An appropriate seed mix will be specified for the type of sward and level of maintenance

Fertiliser

10:10:20, N:P:K - supplied in bags bearing the names of the manufacturer, the analysis of the con-

tents and the net weight. The contractor shall produce to the Landscape Architect the original delivery docket or invoice stating the quantity supplied for these works.

Pre-Seeding Weedkiller

Herbicide selection and usage will need to be approved by the project ecologist and landscape architect prior to works taking place onsite.

Non-selective herbicide: Do not apply when rain is forecast within six hours. Do not apply when wind is likely to cause spray drift (over 24 kph/15 mph). Allow leaf symptoms to develop before carrying out any cultivations (at least 7 days).

Post Emergence Weedkiller

Apply selective weedkiller when grasses have reached the two-leaf stage or beyond, and when seedlings have emerged and have reached cotyledon or two-leaf stage (approx. 4 weeks after sowing). Do not mow within 7 days of treatment. Do not apply during drought. Apply on a fine, still, warm day.

Machinery

All machinery shall be in good and serviceable condition. Harrows and cultivators shall have their full complement of tines, which shall be sharp, effective, and set to give the specified depth of cultivation. Mowers shall be sharp and evenly set to the specified height, and shall in use avoid pulling or laying the sward.

Tractors for use in ripping shall be four-wheel drive or tracked. All tractors shall be fitted with position control to ensure even cultivation, at the minimum specified depth.

Weather

All work to soil shall be carried out in dry weather, and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction by tractors.

Seeding shall be carried out in the fine, still weather. Seed shall not be permitted to fall onto hard surfaces or into planting areas. Any grass germinating there shall immediately be treated with a total weedkiller at the Contractor's expense.

Weedkilling

Application: Killing existing grass pre-seeding, and killing weeds germinating in re-spread topsoil. Apply non-selective weedkiller (For seeding from mid-August onwards, apply not later than 31st July).

If germinating weed grasses are less than 100 mm high and broad leaved weeds have not produced full-sized leaves, do not apply non-selective weedkiller. Apply non-selective herbicide @ 3.0 litres/hectare in water @ 200-300 litres/hectare 4 to 7 days before cultivating.

Ripping

Rip with a subsoiler approved by the Landscape Architect in two transverse directions. The first pass shall be across the maximum fall of the land and the second at right angles to this. Rip at 600 mm maximum centres, at a constant depth of 400 mm. Do not mix subsoil and topsoil layers during ripping.

Cultivations

Cultivate in transverse directions by disc or tine harrows and/or rotary cultivators, to the minimum depth specified in the operations schedule. Remove weeds and roots, metal items and rubbish. Produce a tilth as follows; Reinstatement areas 75mm and quality areas/verges 50mm and pick off stones and debris over that size.

If rotary cultivators are used, the ratio of tractor speed to tine speed shall be sufficient to avoid smearing at the base of the cultivation.

Final Grading

During cultivations, grade with a blade, lute or grader, to produce even, flowing surfaces, free from local humps and depressions.

Finishes

Topsoil shall stand 30 mm proud of manholes, paths and kerbs after cultivation and firming.

Fertiliser

During last stages of cultivation, apply fertiliser evenly over the full area of seeding in two equal passes in transverse directions, and incorporate into the seed bed up to 30 mm deep.

First Cut

Before cutting, pick off stones above the maximum diameter specified on the operations schedule. Roll if specified on the operations schedule to firm sod. The time for cutting and the height of the cut shall be as specified in the operations schedule.

Quality

The quality of the grass sward shall be even throughout with a constant sward and colour. The contractor shall make good any areas not of this quality. Make up and seed over any depressions which develop after seeding. Re cultivate and re-seed any areas which fail to germinate or which die off.

Bulb planting

When the term “bulb” is used in the general rather than in the botanical sense, it should be taken as applying to both corms and bulbs.

All bulbs and corms shall comply with BS 3936:Part 9. They shall be true to name, size, condition and description. Bulbs shall be dry, frost-free and free from infection by disease or fungi. They shall be kept in a warm store prior to planting and shall not be brought onto the site until twenty four hours prior to planting.

All bulbs should be planted in the appropriate season with a suitable planting tool of appropriate pattern and at the correct depth. The hole formed should be of sufficient diameter to accommodate the bulb which should have the base in contact with the soil at the bottom. A plug of turf should be neatly removed and replaced after planting. Bulbs for naturalising should not be planted in rows, but should be scattered by hand over the area allocated to them and planted where they fall.

AFTERCARE

The operations are grouped under the following headings;

Newly planted trees

Shrub beds

Groundcover

General litter clearance

GRASS AREAS

Amenity Grass Areas

Maintenance Objective

To provide an even stand of vegetation of uniform height and colour comprising predominantly grass species, although a small percentage of dicotyledenous plants - no more than 5 per cent - will be accepted.

Maintenance Operations

a) Mowing shall be carried out using a cylinder mower to maintain the vegetation length within the limits of 30 mm and 75 mm during April to August inclusive and between 50 mm and 90 mm during the rest of the year. (This will normally require mowing at up to once a week in the peak of the season and up to, 20 times per year).

b) The arisings shall be let fly but must be distributed evenly over the surface and at no time shall the layer of clippings be of such a depth that will affect the growth of vegetation. At no stage must arisings come to rest on paved or planted areas.

Additional Operations

a) All edges of grass areas, against buildings, footpaths, roadways, trees, posts and any other obstruction shall be kept neat, trimmed and tidy.

b) Mowing strips against fences, etc. shall be 100 mm wide and may be maintained by the use of an appropriate approved herbicide.

Native Grass Areas / Wildflower Areas

Maintenance Operations

Grass Cutting:

- First Year: Cut by the end of July. Cut again to height of 10cm (and remove if possible) if grass regrows to a height of 25cm in the first year.
- Second and third years: require two cuts, one in Spring and the Second in July or August, the meadow can again be cut in September if the grasses are still growing strong.
- Fourth year: if the grass is still vigorous - cut in spring and in August of. If the perennials are growing strong there will be no need to cut until July, August or September depending on soil conditions.
- When Established: It will require one cut, mid-end of summer.

The arisings shall be let fly but must be distributed evenly over the surface and at no time shall the layer of clippings be of such a depth that will affect the growth of vegetation. At no stage must arisings come to rest on paved or planted areas.

Care of Newly Planted Trees - General

Young trees will need regular attention to ensure establishment. The most important operation is to

keep the soil around the base of the tree free from weeds or grass and to ensure secure and correct staking.

Maintenance Objective

Establish a stable and healthily growing tree with a well-shaped framework for future growth.

Maintenance Operations

a) Maintain a 1m. diameter circle of plant-free soil around the base of each isolated tree by hoeing or the use of approved herbicide other than a residual.

Allow for hoeing up of soil once every 4 weeks in the growing season (5 times per year). Allow for herbicide treatment once in the winter or spring and 3 additional treatments.

Note: In some areas this operation may be replaced by the application of bark mulch as ground cover.

b) Cut back any tall vegetation that is threatening to shade or smother the young tree (i.e. taller vegetation growing from outside the 1 m weed free area). Allow for cutting back regularly (3/4 times a year).

c) Provisional item: Water the newly planted trees throughout the summer months (May to August) as required after any period of 4 weeks without significant rainfall (less than 5 mm). Apply sufficient water to thoroughly wet the top 150 mm of soil around the tree roots. This will normally require approximately 10 litres for a seedling or whip and 20 litres for a standard tree, include transport of water to the site.

d) Check stakes and ties for firmness and support and adjust as necessary. Allow for checking twice a year, preferably in late spring and late summer.

e) Firm the soil around the roots to ensure that the plant is securely planted in the ground and upright. Allow for firming once in the spring after planting.

f) Formative prune to remove any dead, diseased or damaged shoots and create a balanced form for future growth. Allow for pruning once in the season after planting.

Shrub Beds - General

The borders must be kept weed free, particularly of perennial weeds, to allow planting to give early cover. However, the plants may be required to be thinned so that the shrubs that are retained are

able to achieve an attractive form. This may involve removing the intermediate plants soon after shoots are touching.

Maintenance Objective

Maintain shrub growth to cover as much as possible of the bed area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible weeds and shape and prune the shrubs to avoid obstructing pathways or blocking light to, or adhering to windows.

Maintenance Operations

- a) After planting, if appropriate and in season for the species involved, prune shrubs to develop their desirable ornamental characteristics. At the same time remove intermediate plants that are restricting the natural and attractive development of their neighbours. Remove all arisings from site.
- b) Lightly cultivate the surface soil, to a depth of approximately 50 mm, remove or bury all annual weed or natural litter and break any surface capping. Take special care to avoid unnecessary damage to the shrub plants and ensure that all the shrubs are firmly bedded in the soil. Leave the surface with a fine and even tilth with soil crumbs of less than 50 mm in diameter. Once a year operation in early winter.

Note: This operation is only essential where the soil is compacted or as a means of incorporating mulch. Not required where the areas are mulched.

- c) Maintain the soil surface substantially free of weeds (less than 10 per cent weed cover) by hand removal and spot treating with Glyphosate, or approved equivalent. Spot treatment at approximately four-weekly intervals in the main growing season, to a total of five times per season.

Note: As an alternative the beds can be regularly hand-hoed at up to two-weekly intervals in the main growing season, to 6 times per year. This procedure is recommended for the first year after planting when the plants may be more sensitive to contact herbicide damage and residual herbicides may not be used.

Ground Cover – General

Described as dense, low-growing plants, which cover the ground and smother any weeds. Ground-cover needs careful establishment, to ensure that any perennial weeds are eliminated.

Maintenance Objective

Maintain a dense, weed free cover of healthy growth, clipped or pruned as necessary to give a neat and tidy finish and contained within the planted area.

Maintenance Operations

- a) Maintain the area substantially free of weeds (less than 10 per cent of weed cover at maximum) by hand removal or spot treating any emergent weeds during the growing season with Glyphosate, or

approved equivalent. Spot treatment or weed removal at approximately four-weekly intervals in the main growing season, to 5 times per year in total. Frequency of sprays to drop, as the plants establish.

- b) Trim and tidy the plants once a year in the winter months, to remove dead vegetation or overgrowing branches. Remove all arisings from site. The amount of work will vary according to the species.

Litter Clearance - General

Maintenance Objective

Collect and remove from the site, all extraneous litter and rubbish on a regular within landscape basis so that its presence is not detrimental to the appearance of the site. (This means that the landscape should be free from litter after each visit to site).

Maintenance Operations

- a) Collect and remove to the contractor's tip all extraneous rubbish, not arising from maintenance works, which is detrimental to the appearance of the site. This rubbish to include stones (over 50mm dia. which may be buried), bricks, debris, paper, confectionery and other wrappings, bottles, cans and plastic containers.

Allow for this operation to be carried out at regular intervals based in conjunction with other maintenance visits and operations.

Herbicide and Pesticide usage must be carried out in accordance with:

Plant protection products (PPPs) are regulated by Regulation (EU) No. 1107/2009.

Regulation (EC) No. 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC

The main Irish legislation concerning the control, marketing and use of plant protection products (PPPs) are:

S.I. 155 of 2012 - European Communities (Sustainable Use of Pesticides) Regulations 2012

S.I. 159 of 2012 - European Communities (Plant Protection Products) Regulations 2012

APPENDIX 1: Response to KCC Report

APPENDIX 1: Response to KCC Report

(Refer to parks report in Appendix B of KCC's planning report for full details)

Issue 3

Requirement	Response
A comprehensive Landscape Design Rationale & Landscape Proposal prepared by a suitable and qualified Landscape Architect. The following shall be included: <ul style="list-style-type: none"> Scaled Landscape Masterplan with cross-sections (where appropriate) showing the general layout and hard and soft landscape treatment of all external areas/spaces, boundaries, structures, and features. Details of Hard Landscape Design Details of Soft Landscape Design Clearly outlined Landscape Plan 	Refer to TBS dwgs 300-311 and Landscape Design Strategy
Landscape Plan to contain sufficient section drawings through all open space areas of the proposed development and including the following: <ul style="list-style-type: none"> 'Linear River Park' & bridge adjacent to the River Liffey along the southern boundary. Existing watercourse near Wellesley Manor in the north west of the proposed development. 	Refer to TBS dwgs 300-3011 and Landscape Design Strategy inc.: Section A-A' & B-B' in dwg 302 Section C-C' & D-D' in dwg 304 Section E-E' & F-F' in dwg 305 Section G-G, H-H, I-I, J-J', K-K, L-L' in dwg 307
Applicant is requested to show sections drawings (north-south and east-west) through the proposed development to illustrate the existing and proposed finished topography	Refer to architects sections that identifies existing and proposed topography Refer to Sections G-G to L-L on TBS dwg 307
Landscape proposals to detail precisely which locations utilise such systems as 'root barriers'	Refer to TBS dwg 308 for proposed locations of same
Landscape proposals to detail the surface types and edges of all proposed footpaths and cycle tracks.	Refer to engineers dwgs for details of same
Materials and finishes of all proposed seating to be submitted.	Refer to Landscape Development Report, Section 2.2 for detail of Omos bench or similar approved
Landscape design shall ensure that the trees are planted at sufficient distance from any public lighting to avoid future conflict.	Refer to TBS dwg 300 for confirmation of same
Coniferous tree species to be included in the tree planting mix.	Noted and included in planting schedule on dwg 308 & Landscape Development Report, Section 2.3
Landscape design to detail locations of all proposed underground services and ensure their location will not compromise existing trees and hedgerows, and proposed trees and planting.	Refer to Engineers dwgs and TBS dwg 300-303 which highlights relevant services locations and avoidance of same
Landscape design shall detail locations of proposed underground attenuation located in the open space areas to ensure there is no future conflict between the underground attenuation and any proposed landscaping or features.	Refer to Engineers dwgs and TBS dwg 300-303 which highlights relevant services locations and avoidance of same
Landscape design shall detail any existing or	There is a wayleave along the

The Big Space Ltd

Creative Dock
Malahide Marina Village
Malahide Co Dublin

T +353 (0)1 806 1840
E info@tbsstudio.com
W www.tbsstudio.com

Reg. in Ireland : 412497

<p>proposed wayleaves or rights of way through the open spaces to ensure that there is no conflict between any existing trees and hedgerows, proposed planting, landscaping or play features.</p>	<p>distributor road ad includes a proposed diversion. There are no impacts or conflicts to the existing hedgerows or proposed landscape works. Wayleave indicated on TBS Dwg 300.</p> <p>Refer to architects/engineers dwgs for location of same.</p>
<p>The applicant shall be requested to re-design the open space area as part of collaboration between Engineers, Landscape Architect and/or Ecologist to provide an enhanced detailed design. Applicant also requested to incorporate the watercourse as a feature</p>	<p>The site plan has been re-designed to provide well located, functioning public spaces. The spaces include a number of age inclusive functions for both passive and active recreation including natural play, kick about areas (both formal and informal) informal play areas, walking, running and cycling trails and seating.</p> <p>Refer also to Landscape Development Report- Section1.5 & 2.1 for additional details.</p> <p>The existing watercourse has been successfully incorporated into public realm which provides a valuable ecological and amenity resource within the proposed development.</p>
<p>Detail Design Item</p>	
<p>It is a requirement of the Parks Section that open space is consolidated into a clear open space hierarchy network to provide larger spaces with a more useful range of active and passive recreational activity options rather than being left over 'incidental' or 'peripheral' spaces. To this end all proposed open space areas shall be redesigned to make larger more useful open spaces which are more beneficial to surrounding residents and facilitate passive supervision. In addition, open space shall be provided between units in the south-east of the development.</p>	<p>The site plan has been re-designed to provide well located, functioning public spaces. The spaces include a number of age inclusive functions for both passive and active recreation including natural play, kick about areas (both formal and informal) informal play areas, walking, running and cycling trails and seating.</p> <p>Refer also to Landscape Development Report- Section1.5 & 2.1 for additional details.</p> <p>The size of the public spaces are appropriate to the scale of the proposed development. The site plan now provides a clear hierarchy of public spaces, providing sufficient space for both passive and active recreation. Each space is a minimum of 10m in width allowing for a variety of passive and active recreation uses to take place.</p> <p>The public spaces also includes significant new native tree planting which, in time, will assist in creating new urban woodland and enhance biodiversity within the</p>

	<p>area generally.</p> <p>Passive supervision of all public spaces is provided by the arrangement of dwellings overlooking the spaces. Refer to architects dwgs for same.</p>
It is a requirement of the Parks Section that the housing layout plans and section drawings (north-south and east-west) that ensure the orientation of housing in the vicinity of open space is orientated to facilitate passive supervision.	Refer to architects revised site plan. Passive supervision of all public spaces is provided by the arrangement of dwellings overlooking the spaces.
Detail Design Item	
Existing hedgerows and trees are retained and protected as much as possible	Refer to arborists dwgs and report for information on same. TBS drawings 300-311 also indicate retained hedgerows.
Boundary treatment proposals to provide comprehensive details of how treatments will not render areas of inter alia land, hedgerow, trees, drainage ditches, or utility cabinets inaccessible or unable to be maintained or create areas of 'no man's land' between this and possible future developments	<p>Refer to engineer's dwgs for locations of all drainage ditches, SuDS, proposed services, utility cabinets etc.</p> <p>Refer to TBS dwgs 306 & 307 for proposed boundary treatments. All areas are accessible for maintenance purposes</p>
The boundary treatment and landscape proposals shall also show a comprehensive suite of section drawings through all boundaries to illustrate existing and proposed finished topography of adjacent areas	<p>Refer to TBS dwgs 306 -307 for proposed boundary treatments inc:</p> <p>Section G-G, H-H, I-I, J-J',K-K' & L-L' in dwg 307</p>
It is a requirement of the Parks Section that the layout plan for the proposed development ensures that the existing trees and hedgerow along the southern boundary are retained and protected during construction.	Refer to arborists dwgs and report for information on same. The revised site plan allows for the retention and protection of the existing hedgerow along the southern boundary. Also indicated on TBS dwg 300.
Comprehensive details including a programme of works shall also be provided for remedial and improvement works to the existing boundary trees and hedgerows.	Refer to arborists dwgs and report for information on same
<p>The boundary details drawing shall also clarify the boundary treatment proposals along the following boundaries of the proposed development:</p> <ul style="list-style-type: none"> • North-western and western boundaries adjacent the Zoned F: 'Open Space and Amenity' lands. • North-western boundary adjacent Wellesley Manor where the existing laurel hedge, post & rail fence and watercourse are located. 	Refer to TBS dwg 306-307 for proposed boundary treatments
It is a requirement of the Parks Section that an appropriate permanent boundary type shall be incorporated in addition to existing and proposed planting (proposed boundary treatment adjacent Great Connell Road). Further to this, the Roads Section report also	<p>Refer to TBS dwgs 306-307 for proposed boundary treatments inc:</p> <p>Section L-L' in dwg 307</p>

requests a suitable boundary along the NSOORR (mentions several examples and includes photographs)	
Detail Design Item	
It is a requirement of the Parks Section that the applicant is requested to liaise with Kildare County Councils, Roads and Parks Sections in relation a landscape upgrade of this roundabout	Client has undertaken a review of the design for the new signalised junction with KCC.
Detail Design Item	
It is a requirement of the Parks Section that Public Park areas provide a variety of quality public amenity facilities to cater for a wide range of users and for active and passive recreation (refer to the Parks' report for a non-exhaustive list of typical requirements for a public park). Applicant requested to liaise with Kildare County Council, Parks Section in relation to detailed proposals for the 'Linear River Park' and to submit proposals which address requirements.	Refer to TBS dwgs 300 ,303 & 307 and Landscape Design Strategy inc: Section G-G, H-H & I-I in dwg 307 Report section 1.5, 2.2 & 2.4
It is also a requirement of the Parks Section that 'flooding considerations' be central to the design proposals for this area.	The landscape proposals for the Liffey Linear Park have been fully informed by flooding considerations in consultation with JBA Consulting Engineers who prepared the SSFRA. Refer to engineers dwgs for SW drainage proposals
Detail Design Item	
All play areas shall be designed to provide a variety of natural play opportunities (i.e.natural spaces) and provide for universal access. Any proposed structures or items with swings, nets, ropes, and movable parts should be omitted (report includes a list of items to be revised).	Refer to TBS dwgs 300,301 &302 and Landscape Design Strategy, section 2.4 for information on natural play provision

