



**Landscape Design Rational + Green Infrastructure Report:
Residential Development at Coolcarron, Fermoy Cork, Co. Cork.**

Prepared on behalf of:
Cumnor Construction

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1.0 Introduction

The objective of this report is to describe the proposed landscape and external works as part of the Residential development at Coolcarron, Fermoy, County Cork. This report should be read in conjunction with documents issued and included in this submission by Cathal O'Meara Landscape Architects, Walsh Design Group Engineers, Ger Coughlan Architects and others.

Cathal O'Meara Landscape Architects visited the site several times preceding this application during the summer of 2019 and 2020/2021 in order to observe conditions on site, such as existing vegetation, context with respect to adjoining sites, boundaries and other items, which would have a bearing on the design process. Desktop studies were also carried out to collect information on past applications relating to the Current and Draft Cork County Council Development Plan (2022-2028), Fermoy Local Area Plan 2017 as well as planning applications for neighboring developments.

The following documents have been issued by Cathal O'Meara Landscape Architects as part of this submission (see appendix):

No.	Size	Scale	Title
1920 - LA- P001	A1	1:500	Landscape Layout
1920 - LA- P002	A1	1:500	Landscape Layout
1920 - LA- P003	A1	1:500	Landscape Layout
1920 - LA- P004	A1	1:1000	Boundary Treatments

2.0 Existing site features

The site for the proposed development is located on the residential periphery of Fermoy Town and is adjacent to the R639 Road to Cork.

Adjacent land uses comprise a wide range of activities from sports pitches in the north to forestry in the east, a small cluster of retail/industrial to the west and agricultural land to the south.

The site is located in gently undulating land with restrictions on long distance views owing to the dense hedgerows and limited elevation. Mid distance views of Corrin Hill however do dominate the site and anchor its character.

Presently the site is free from significant vegetation having possibly been cleared for construction in the past. A line of Mature Broadleaved trees is evident with an internal hedgerow. A central drain is contained within the centre of the site and runs east. This drain is connected to a larger drain to the east of the site and form its boundary with the adjacent forestry. This drain contains bradleaf vegetation and forms an ecological corridor.

An area of wet grassland was found to the south east of the site and contains some wetland species. A further site feature of interest was the small area of wet woodland also to the east of the site.



Interior images showing the site features; Above view of Corrin Hill, below showing agricultural grasslands and below left showing adjacent forestry



3.0 Existing boundaries

The entrance to the site is via a small slip road/layby used by An Garda Siochana from the R639 old Cork – Dublin Main Road. This layby contains a small weighbridge.

Adjacent to this entrance (to the north) are the rear boundaries of industrial type sheds of Texaco and the adjoining Cavanaghs Car Sales Garage and also an ESB Sub Station.

To the north of the site is the St Colemans Pitches, recently opened as a recreational type walking loop. This boundary is defined by a low steel mesh fence on a raised earthen embankment

To the east the site is defined by a small wet drain and an associated low stone wall. The southern boundary is demarked with a mixed native hedgerow. This hedgerow boundary also runs along the south western boundary separating the site from an adjoining farm and 3Nr single rural dwelling houses.

This is an edge of town site and contains a mix of adjoining land uses including forestry agriculture, and retail/sales.



Images showing the adjacent land uses; Above view of rear of Texaco garage with ESB substation to left, below showing St Colemans Pitches associated walking track and below left showing layby



4.0 Green Infrastructure Strategy

In the context of Housing development, green and blue infrastructure is understood as all natural and semi-natural landscape elements that (could) form a green-blue network. This can include landscape elements on various spatial scale levels: from individual rows or groups of trees to larger ecological systems.

The green elements are linked to the trees, grassland, ornamental planting, hedgerows, and woodlands whereas blue elements are considered in terms of water systems and surface water. These can include pools, streams, suds features and watercourses. Together these items form the green-blue infrastructure.

This Green Infrastructure Strategy focuses on the principal design focus to retain the existing landscape and ecological features as a central design driver in the proposed development. These features were identified at the initial site visit and consist mainly of an internal drain which runs in an eastern direction. This drain is fringed with large mature broadleaf vegetation and in turn that feeds a larger drain/swale to the east which runs off site to the north. Both of these drains contain tree cover and some wetland grasses and forbs. This ecological corridor forms the backbone of the proposed Green Infrastructure and Landscape Design, with most open space connecting to it.

4.1 Tree Cover

Only one tree will require removal within the site in order to facilitate the proposed development with no loss of hedgerow or treeline anticipated. A significant gain in tree cover is proposed totaling over 750 trees which are proposed as part of this development. These will include native species as the principal elements and will contain Birch, Willow, Mountain Ash, Oak and Alder species. Extensive planting of pollinator friendly orchard trees and other non native flowering varieties will also extend the habitat offering. This Native/non-native pollinator friendly planting is in line with All Ireland Pollinator Plan recommendations.

The palette of tree planting has been informed by the objective to define specific areas. These areas are defined as Parkland, Streets and Riverside.

Within these areas it is proposed to plant:

- Parkland trees within the open spaces
- Street Trees within the Streets and Homezones and
- Wetland trees adjacent to the existing ditches

Within this diverse palette of trees a series of predominantly native species are proposed. However some variety is introduced to add long seasonal interest.

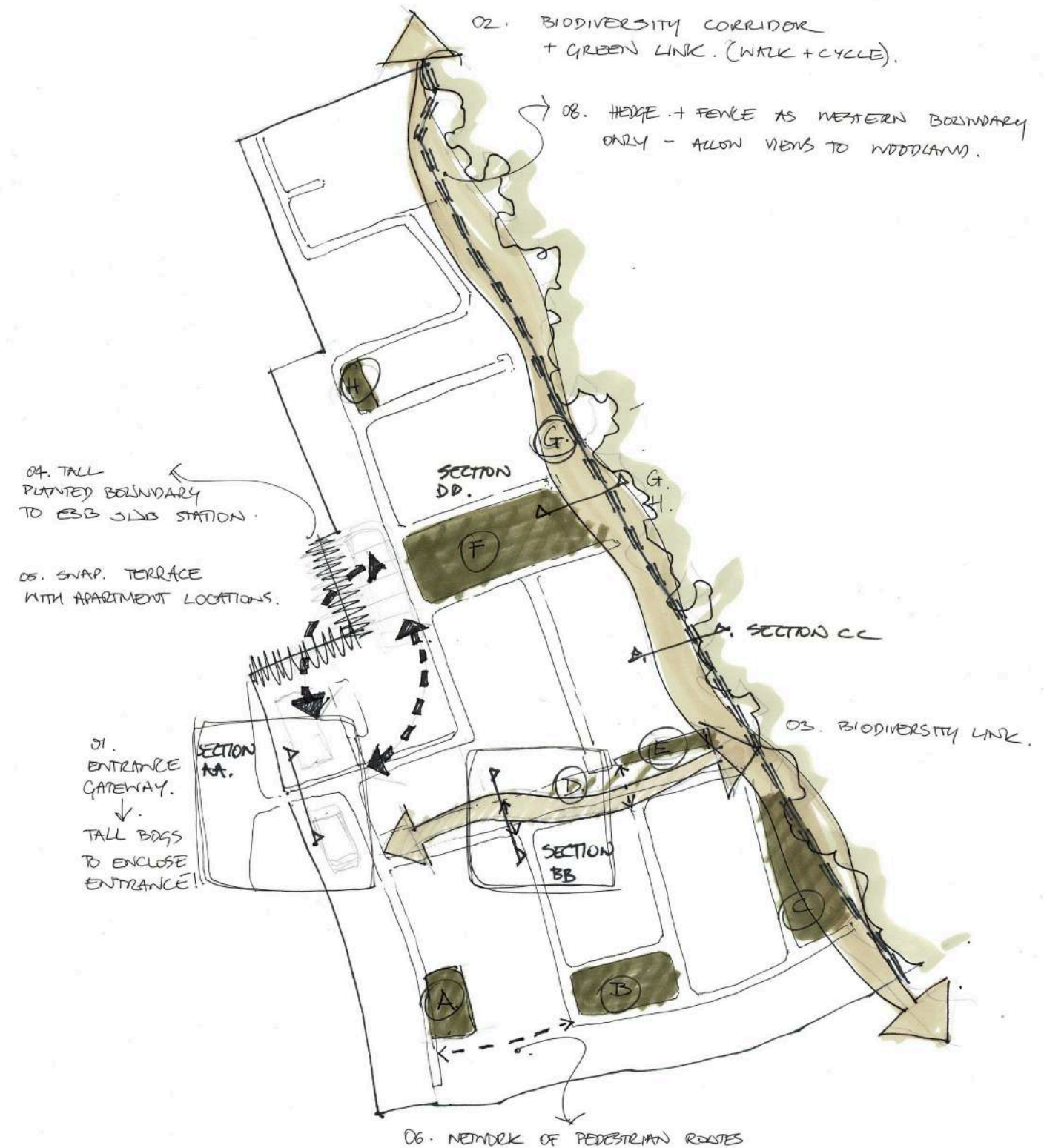
The linear formal arrangement of tightly planted trees will lead to the main landscape feature of the site and its associated Mature Broadleaf Trees.

During the design process the project ecologist identified 2 further items for retention



SCALE 1 : 2500

Coolcarron Fermoy, Green Infrastructure Sketch





with the scheme these were

- 1) The existing wet woodland, as indicated in LAP002
- 2) The diverse wet wildflower sward.

4.2 Hedgerows

No removal of hedgerows is proposed as part of this proposal. However in order to facilitate permeability within the development the large internal hedgerow will be facilitated with 2No. pedestrian links, and an additional vehicular bridge.

A total of 4,600 linear meters of new hedgerow of which 600 linear meters will comprise of new native hedgerow is to be planted. This is in association to supplementary inter planting within the existing hedgerows to the south and west.

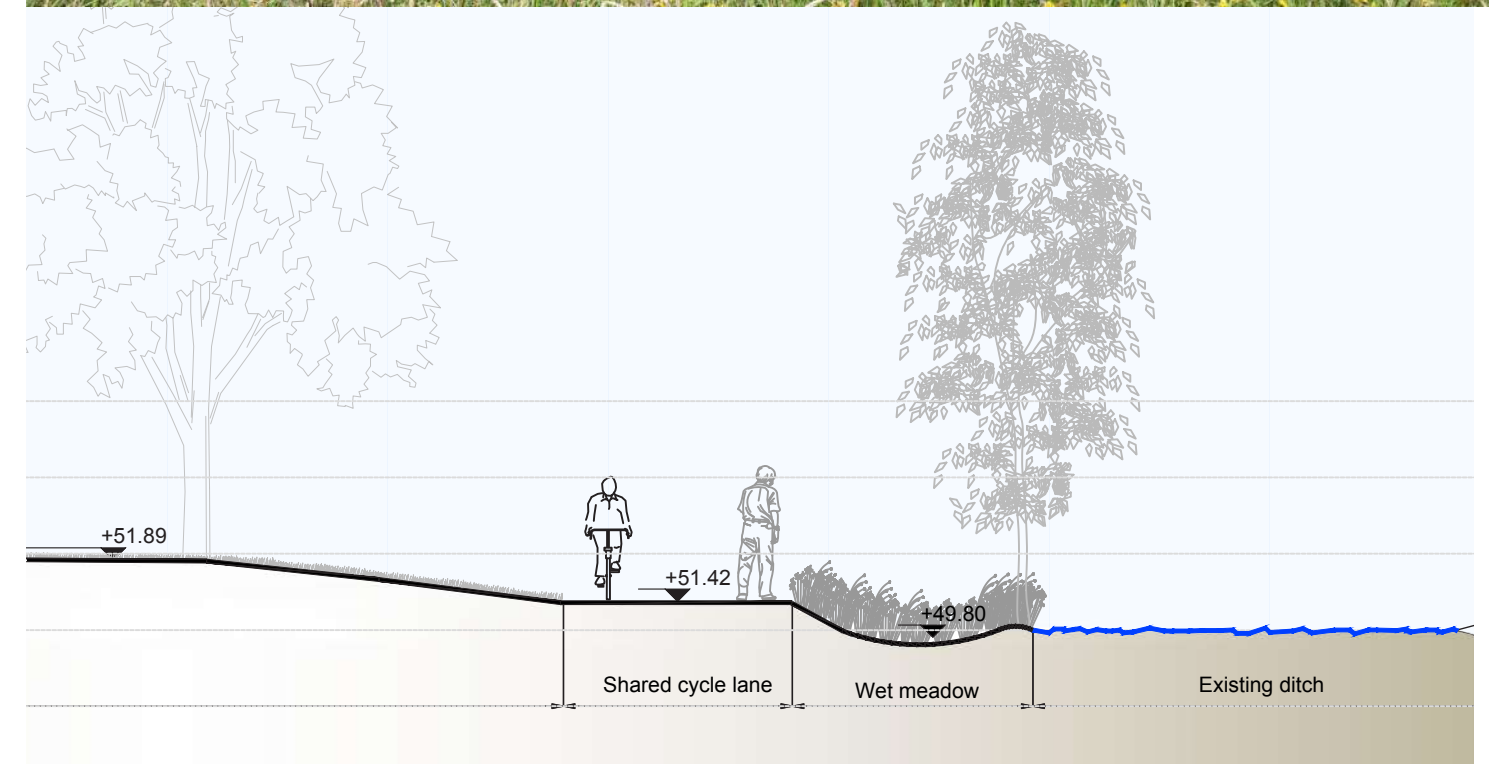
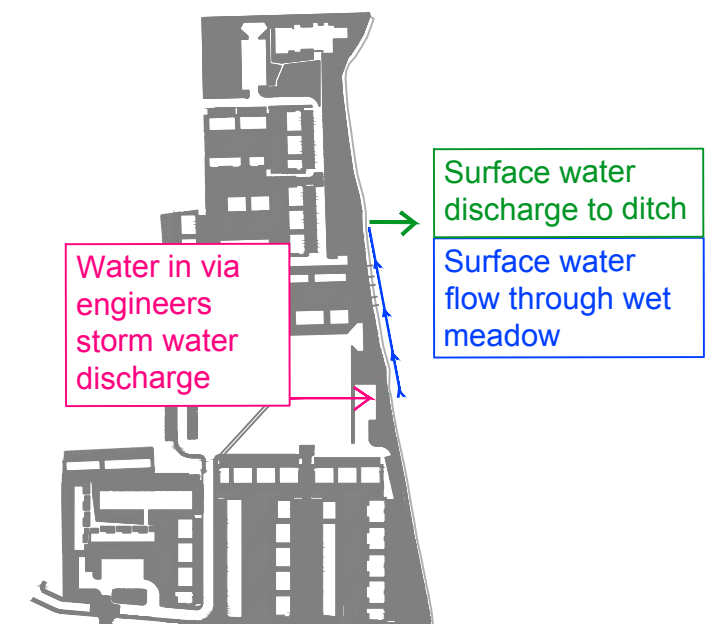
4.3 Native meadows and Grassland

The proposed Landscape Layout for the development includes for the translocation of 940 sqm of existing wet grassland turf from the south-eastern part of the residential site (where higher value marshy wet grassland community occurs) to a wet swale area further north as well as maintenance of natural wildflower meadow through management of existing soil seed bank (see Landscape Layout Drawing Nos. 1920 LA_P001, 1920 LA_P002 & 1920 LA_P003 by Cathal O'Meara Landscape Architects) Further-

Image at right
Showing capture of surface water and creation of a wet swale where surface water will be used to create a wetgrass-land habitat where translocated turf can be laid.

Image below
Showing wet grassland turf which is to be lifted and relaid.

Image at bottom
showing detail section of proposal with indicative section



more some areas of wet grassland will be retained along the eastern boundary of the study site.

4.4 Ornamental planting

Ornamental planting is proposed at specific locations to introduce some diversity to the landscape and to create specific, individual spaces.

A spectrum of hardy, low maintenance perennials and architectural grasses have been chosen and will be planted in large mixed and single species blocks creating drama and texture with the public areas.

The planting choice will provide year round interest with lively pops of seasonal colour and retained winter structure.

4.5 Screening

A native mix formed from 40% evergreen species is proposed to screen the adjoining industrial buildings and the ESB substation.

This mix shall contain *Pinus sylvestris*, *Ilex aquifolium*, *Corylus avellana*, *Prunus spinosa*, *Crataegus monogyna*, *Prunus Avium*, *Alnus glutinosa*, and *Quercus Robur*.

This screening planting will create a shelter belt along the Northwestern boundary and provide ecological diversity while helping ground the site within its setting, visually referencing the view to the open countryside beyond.



Long seasonal interest – *Betula albosinensis* Fascination with associated peeling bark and below showing mix of ornamental species and grasses which retain winter form and seedheads.
Image at left showing ESB substation and garages of Texaco to be screened with tree/screening



5.0 Landscape Strategy

The Landscape Strategy focuses on three main components:

1. Retaining the strong existing landscape and ecological features and using these as a reference for the design of the adjacent open spaces.
2. Constructing a high quality streetscape which slows traffic and allows all users to feel safe.
3. Creating well designed robust play spaces which meet the needs of all age ranges.
4. Use the existing site resources to implement sustainable Green and Blue principals.

The overall landscape strategy relates to both the strategic requirements for a new residential site and the intended passively supervised, open characteristics desired for a social, community focused development.

It is guided by the strong natural features onsite which the current proposal seeks to retain. These features include an existing wet ditch which runs from the west to the east of the site.

This ditch also contains some fine mature Oak trees which will be retained within an ecological corridor. Another wet ditch runs in a southern direction. Continuing this corridor into the wider landscape.

The landscaped area of the development forms 15.2% of the overall site thus meeting the usable open space requirements as set out within Cork County Councils Recreation and Amenity Policy.

All works will be of high design quality with feature paving, large, semi mature trees, bespoke play spaces and robust low maintenance planting.

The proposed open space strategy for Coolcarron intends on providing for 4Nr Flexible open spaces within the development.

In addition to this provision a linear green route is proposed along the north south axis, this is facilitated with a 3m wide shared surface path.

The design and size of all open spaces meet the guidelines as set in the Recreation and Amenity Policy and will provide a series of attractive, robust play spaces set within an attractive landscaped setting.



5.1 Streetscape/ Circulation

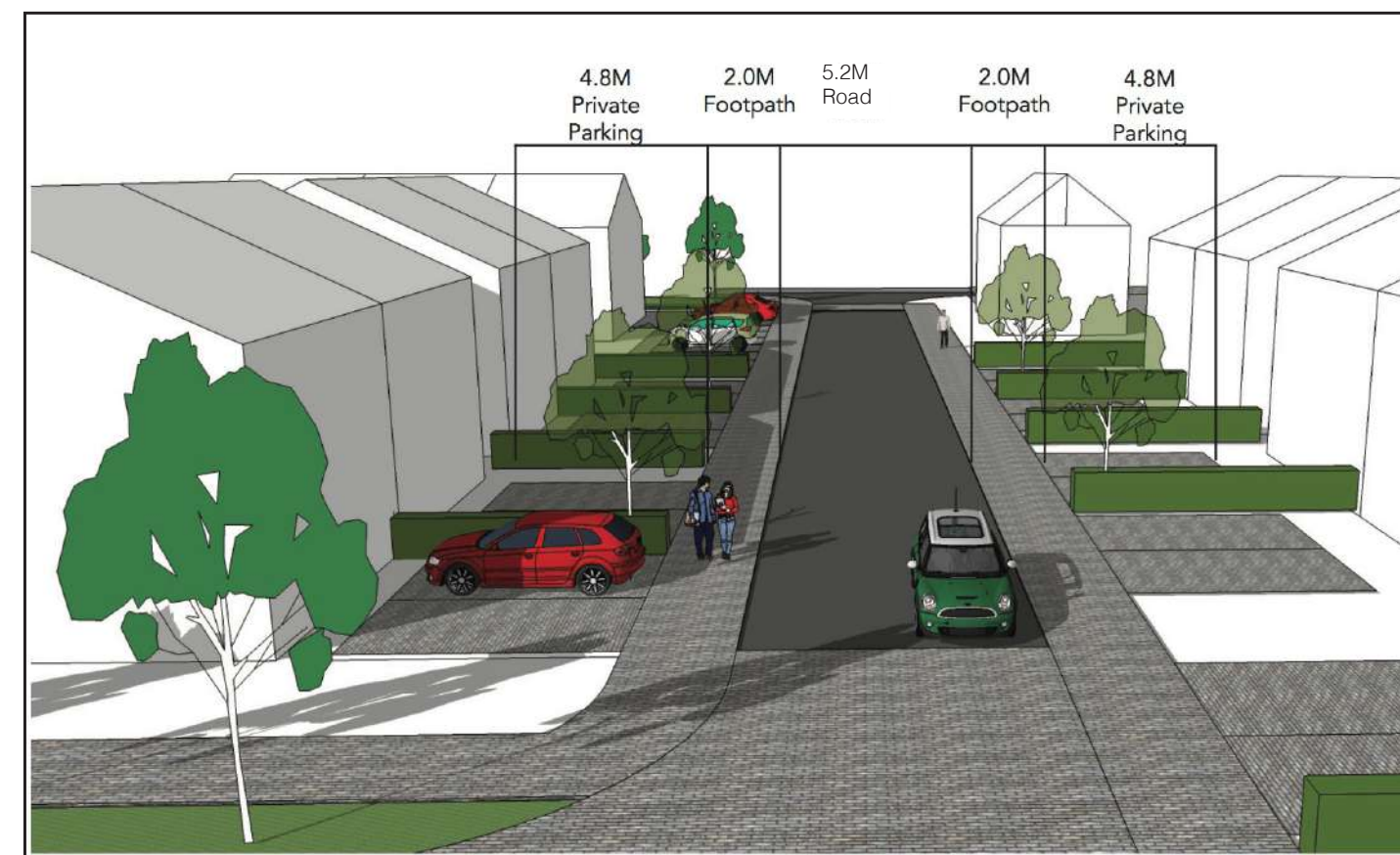
The transport function of the development has been considered within the context of the open spaces of the site. This designed response seeks to balance vehicular speed with different pedestrian requirements in a manner that does not rely on physically intrusive measures for enforcement.

From the start a hierarchy of routes has been identified. This hierarchy is consistent with the Current edition of The Design Manual for Urban Roads and Streets – (DMURS 2019). A series of complimentary interventions is proposed to support this design intention. These interventions aim to reduce vehicular speeds by limiting long straight sections of carriageway (intervals of less than 70meters).

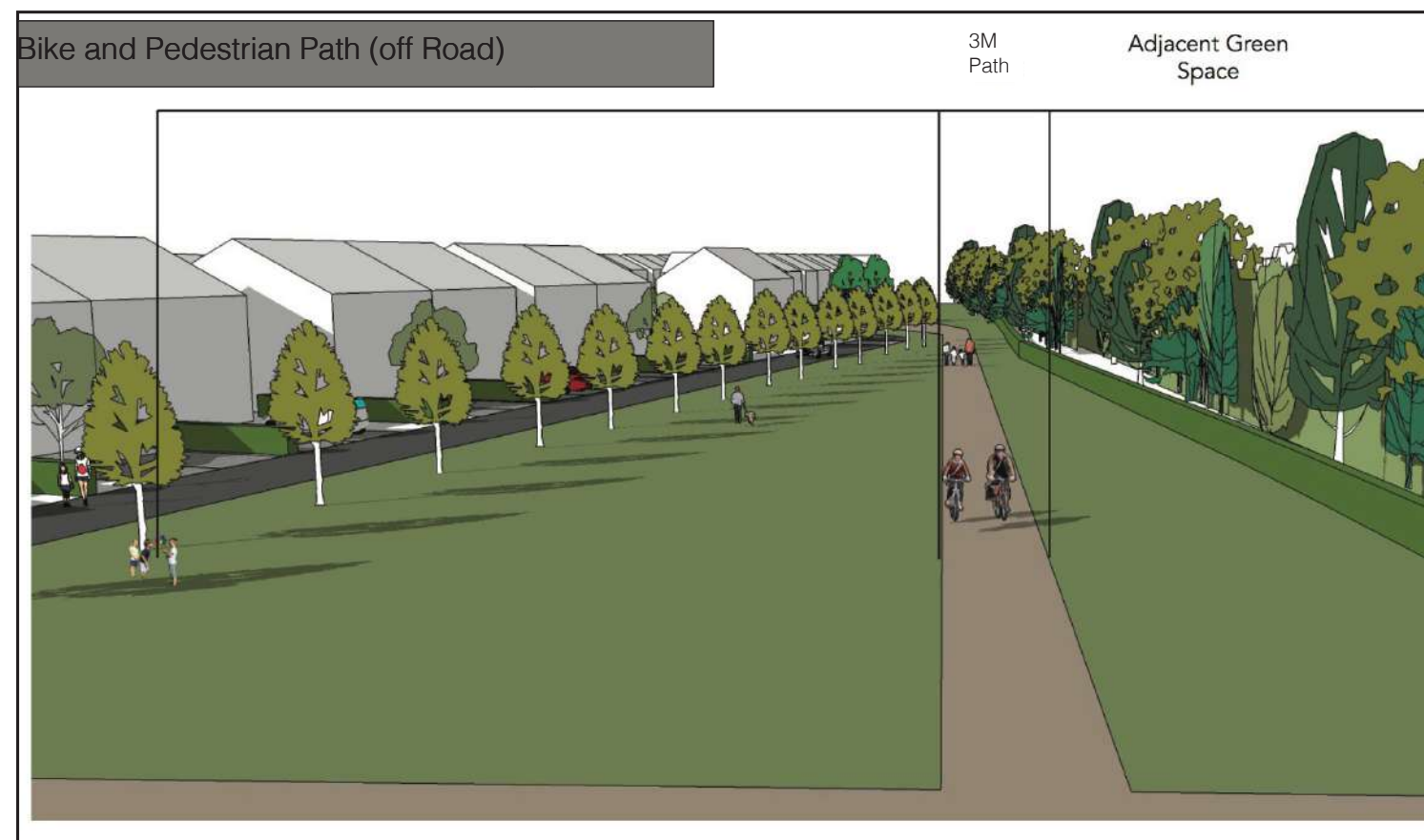
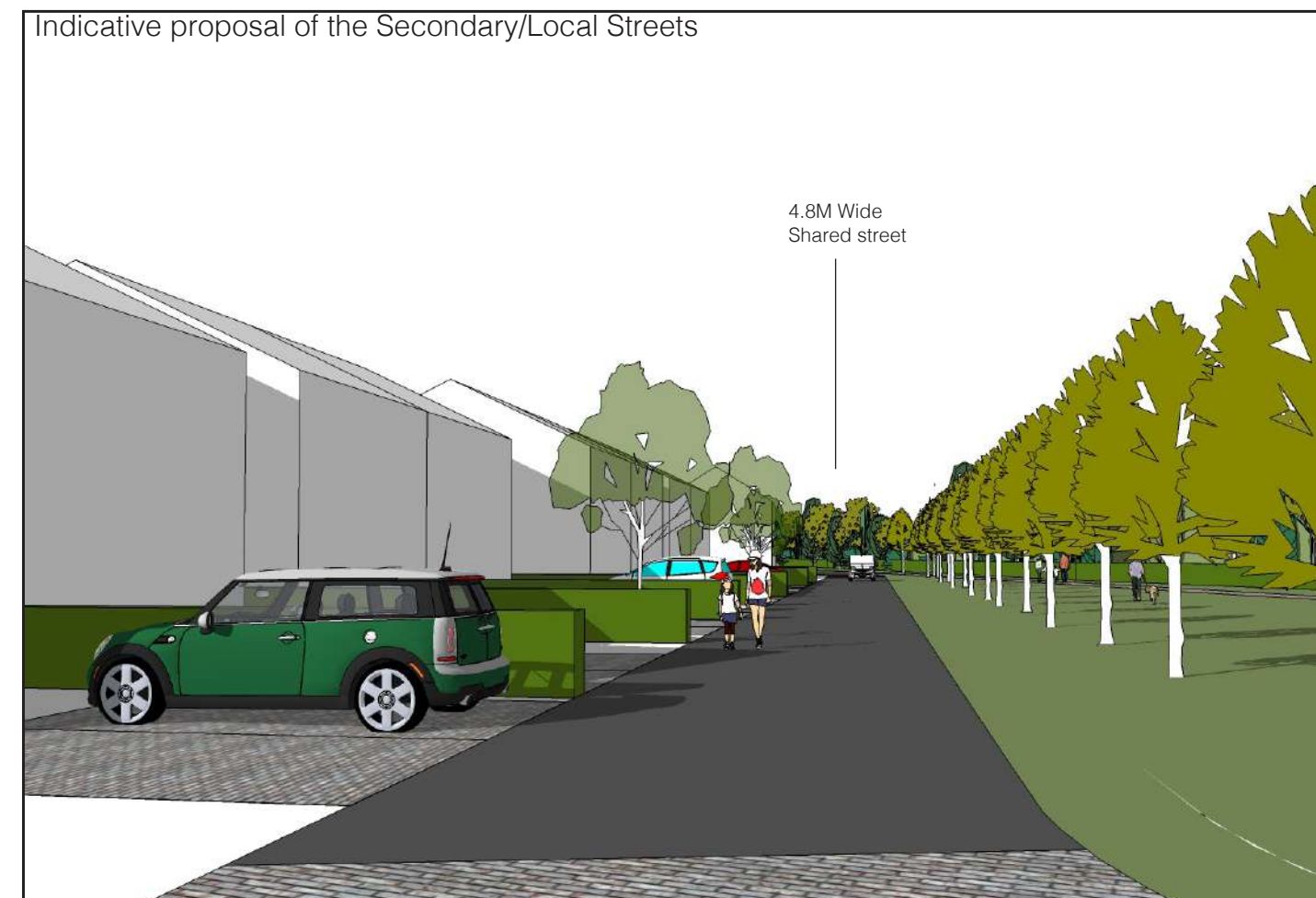
Further interventions include the introduction of textured tables at junctions. A palette of street tree planting is proposed to further enforce the place making aspects of the development, supporting the creation of different areas within the development.

A green route is proposed to the east of the site contained within the ecological corridor.

Indicative proposal of the Principal Streets/Main Streets



Indicative proposal of the Secondary/Local Streets



5.2 Circulation map:

The streetscape hierarchy is proposed as follows.

- Main Routes (Pedestrian and vehicular)/ Local distributor
- Secondary Routes/ Local streets
- Minor Access (Bicycle and pedestrian routes)

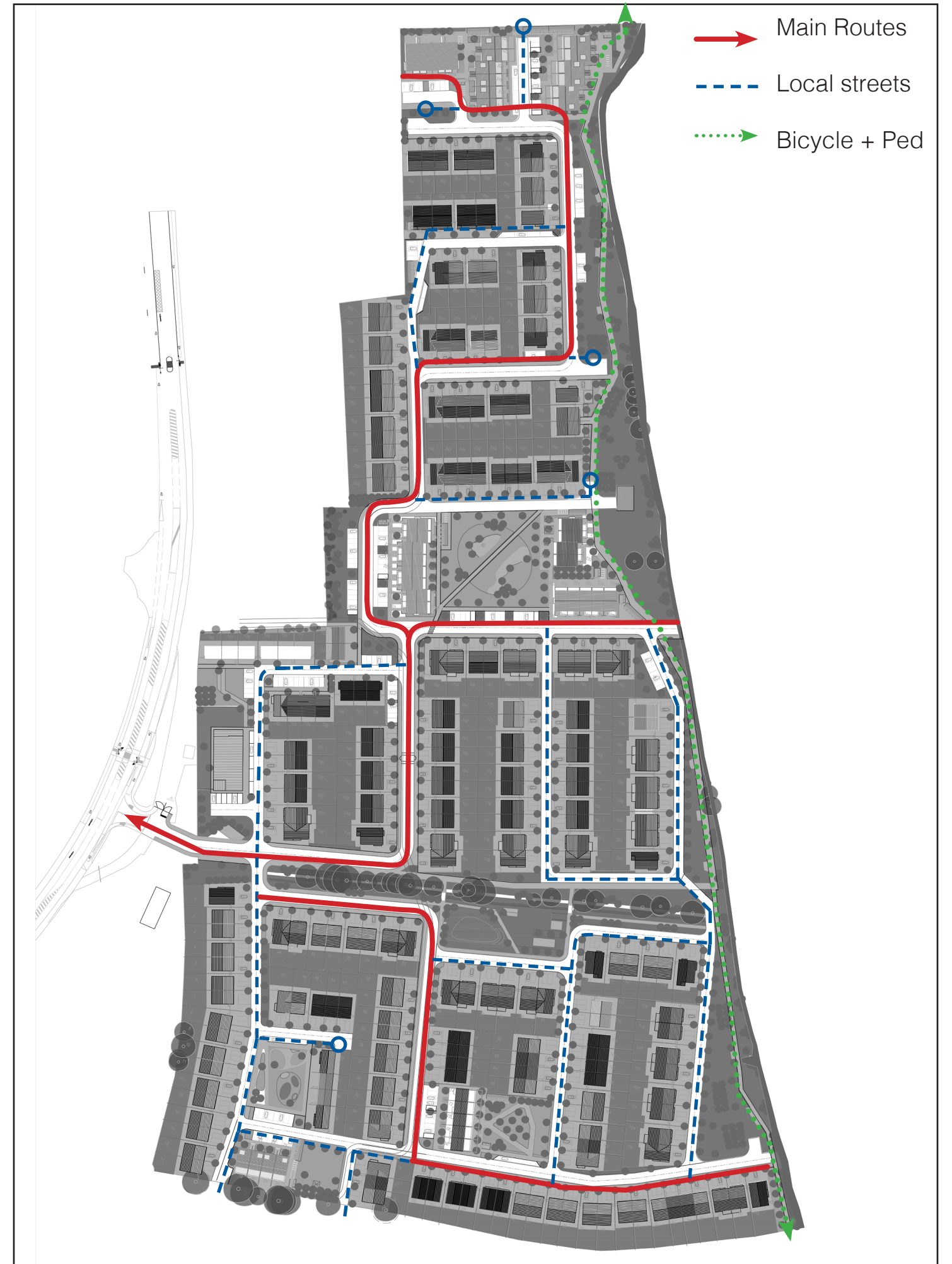


Image opposite: Circulation map

5.3 Recreational Facilities

Cork County Council have recently issued new guidance on the provision of recreational facilities within housing developments.

The proposed Play strategy for Coolcarron intends on providing for 3Nr Flexible open spaces including play equipment in each area (each of minimum 100M2) within the development. In addition to this provision a linear green route is proposed along the north south axis, as well as some informal play elements (tree trunks and boulders throughout the site).

5.4 Play

The Flexible open spaces dedicated area for play is sited throughout the development within passively overlooked open space, designed for use by toddlers and children up to 12 years old. These areas will contain a collection of 'natural' play objects such as timber stepping stones, sanded tree trunks and beams to encouraging balancing activities with smooth insitu landscaped berms for further climbing and clambering.

All play features will be manufactured in accordance with standards EN 1176 and EN 1177 with impact absorbing surfacing where required for specific fall heights from the play features.

Seating will be provided in the form of a timber benches at 450mm high. In addition one of the open spaces will include a concrete table tennis table, Timber picnic benches as well as specific elements of high play value such as a "Look Out" with slide and Robinia Hammocks.

Within these central play zones, a grass lawn will allow space for an informal kick about or provide an area to throw down a picnic blanket and sit with family and friends.

Natural play features will feature within 3Nr flexible open spaces, where the 4th will be used as a passive recreational space, with a central island built up surrounded by a 500mm high concrete bench and a grove of prunus, surrounded by pick nick benches and a more fami-



Natural play features intended for use within the flexible open spaces.

Location of 3No. Play spaces within development



5.5 Recreational walks/Jogging routes

The proposed development site bounds an existing publicly accessible Open Space (FY-O-08 in the Current LAP) This contains

- 5No. Full size playing pitches
- All weather Floodlit Tennis Courts
- A Sports Hall and a
- 1.2Km Floodlit walking/jogging track.

This is in addition to the Loretto Sports complex which is 300 meters from the proposed development. The Loretto complex contains 6No. 7-a side Astro Turf Pitches as well as a Multi Sports Indoor Hall.

Given the proximity and variety of existing sports facilities adjoining the proposed development no specific sports facilities are proposed within the site.

However given the long north south axis within the site a recreational walking/cycling route through the site is proposed. This will be 620meters in length and be fully off road. The Site has however also been designed with strong permeability and a circular route through the existing streets is possible.

2No. connections are created within the development should further opportunities arise within adjacent sites to realise these openings.

Image - Extracted from Layout showing location of possible future connections



Image Above, Timber Agility Trail/climbing frame for use within the play areas
Below exemplar image of a concrete Table Tennis Table



5.6 Proposed Boundaries

A series of separate boundary drawings have been prepared as part of this proposal Drawing No. 1920-LA-P004.

Northern boundary and Western boundary– Proposed 1.8M high block wall rendered on both sides and painted in a mid grey. Block wall with pc concrete capping, piers at regular intervals (to be confirmed by the engineer).

Eastern boundary – Proposed 1.2m high steel mesh fence inset into a native planted hedge-row.

Southern boundary – Retain existing ditch and supplementary native species to be planted as per landscape layout

Internal Play space boundaries - Include 1.2m high chestnut pale and steel wire fence secured to treated timber posts at 2M intervals. See detail B04 on Drawing 1920- LA-P004

Private Open Spaces – Back to back rear gardens divided to provide private gardens and are divided by a 1.8M high block wall rendered on both sides and painted in a mid grey. Block wall with pc concrete capping, piers at regular intervals (to be confirmed by the engineer). See detail B01 on Drawing 1920- LA- P004

Private Open Spaces – Side to side rear gardens are divided by a 1.8M high concrete post and timber panel fence. See detail B02 on Drawing 1920- LA-P004

Front gardens – Front gardens are divided between dwellings with a 1meter high steel fence with inset planted hedgerow – See detail B03 on Drawing 1920- LA-P004



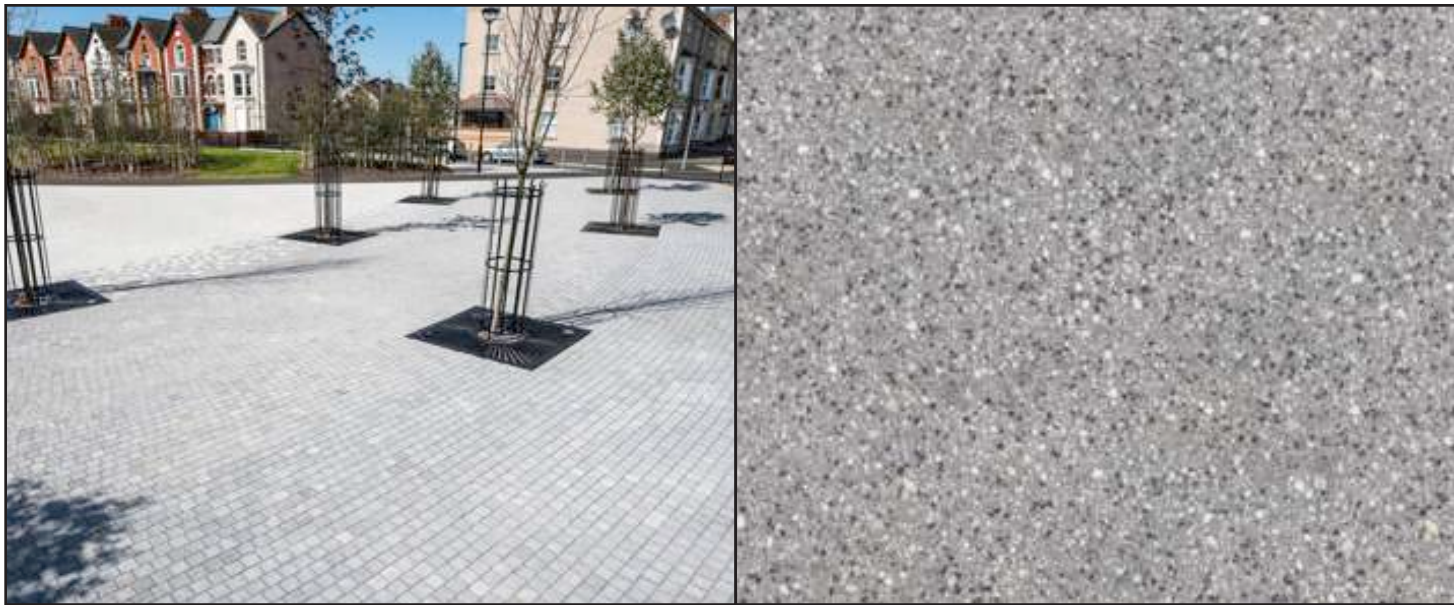
5.7 Hard Landscape Materials & Furniture

A simple palette of hard materials is proposed to integrate the landscape with the buildings.

All materials will be in subtle shades of grey ranging from charcoal to silver shades to create a simple palette with the white rendered and brick built facade, thus accentuating the softer elements of the planted landscape.

Landscape materials for the building curtilages including back patios have been chosen for their longevity and durability, Granite aggregate pavers will be used in both the rear and the front gardens with a difference in the unit size.

The asphalt carriageway will feature raised tables constructed from high content brown grey aggregate chip to differentiate them from the associated carriageway. Robust seating will be provided within the concrete edges at both play spaces and similarly within the shelter.



Small unit Granite Aggregate pavers as proposed for front driveways and larger format pavers for the rear patios.

6.0 Implementation

It is proposed that the full landscape planting be undertaken to the later stages of the building works to ensure the safety of trees and softer planting materials.

All bare root trees shall be planted from October to March. Potted planting material may be planted year round.

7.0 Maintenance

Scope of work

The maintenance of grass, trees, shrubs and perennials for the period of each contract. During this period the contractor shall keep all roads and pavements clear of weeds, grass mowing's, mulch and rubbish from site at the conclusion of each days work.

Trees and Shrubs

Tree stakes shall be checked at least once a month to make sure they are still performing correctly. Any loosened tree stakes shall be re-firmed and any damaged or broken stakes shall be replaced immediately and the ties adjusted to hold the tree firm.

Shrubs and trees loosened by wind, frost or any maintenance operations shall be firmed up. This shall be carried out at least four times a year. If any plants have been completely lifted out of the ground they shall not be replanted but replaced.

A 500 mm diameter circle shall be kept free of grass around the base of each tree to facilitate grass cutting and root development of the tree.

Weed Control

Any weed growth occurring during the maintenance period shall be spot treated with a glyphosate free herbicide – “Basta” or similar approved. All herbicide shall be applied to the manufacturers instructions.

Plant deaths

All tree and shrub losses to natural causes after planting shall be replaced by the contractor within the following season with plants equal in size and shape to those lost.

Pests and diseases

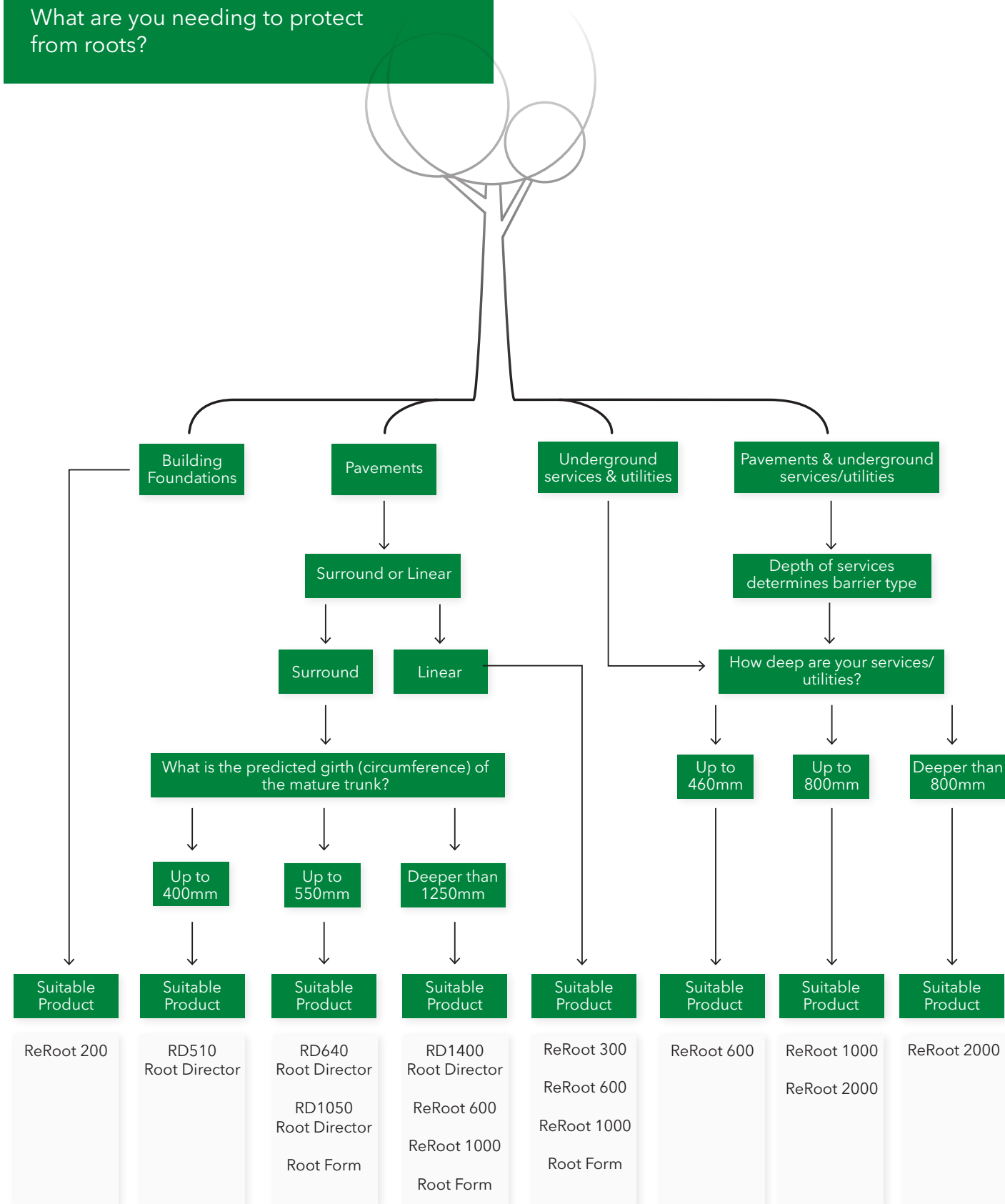
Experienced personnel shall inspect all plants at least twice a year for the presence of pests and diseases. If either or both are present the contractor shall report the conditions and implement the appropriate control measures immediately.

Any heavily infested plants may need to be removed and replaced with clean stock.

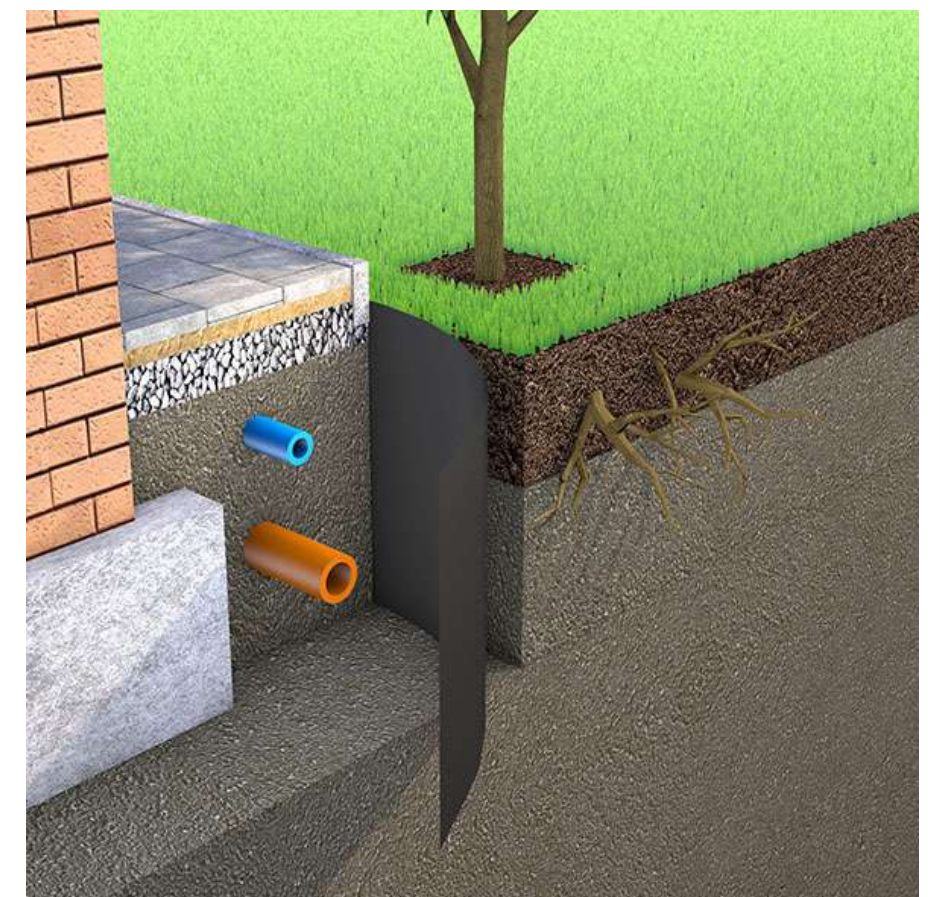
Appendix 5: Planting near infrastructure specification solutions

Root Management Selector Chart

What are you needing to protect from roots?



ReRoot Ribbed, Tree pit perimeter root control



ReRoot 2000, Deep linear application rootbarrier