



APPENDIX 4-7

LANDSCAPE MASTERPLAN



Primary Care Centre & Nursing Home at Moygaddy, Maynooth, Co. Meath

LANDSCAPE RATIONALE

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August 2022



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SITE CONTEXT



Location

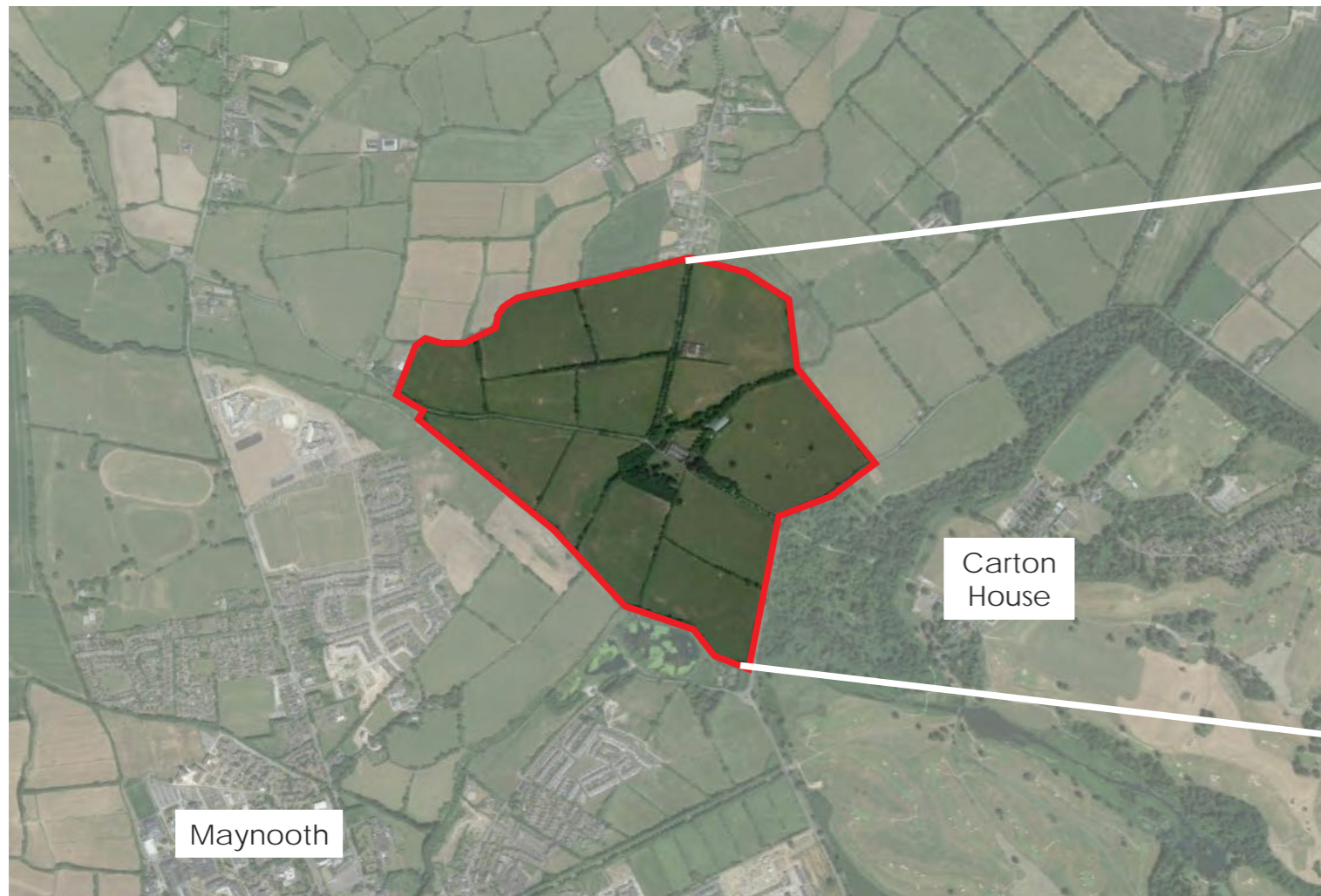


Figure 1

 Moygaddy Future Development

The proposed development lands are situated in Moygaddy (Maigh Gadaí), County Meath, just north of Maynooth. The Applicant controls a land bank of circa 240 Acres, as shown in Figure 1, which is earmarked for major infrastructure upgrades and future mixed use development.

The largely greenfield site is bordered by mature trees and hedgerows, with many scenic vantage points which offer elevated views south to Maynooth and the surrounding hinterland. The location of proposed Primary Care Centre & Nursing Home Development, which is the subject of this application is shown in Figure 2.

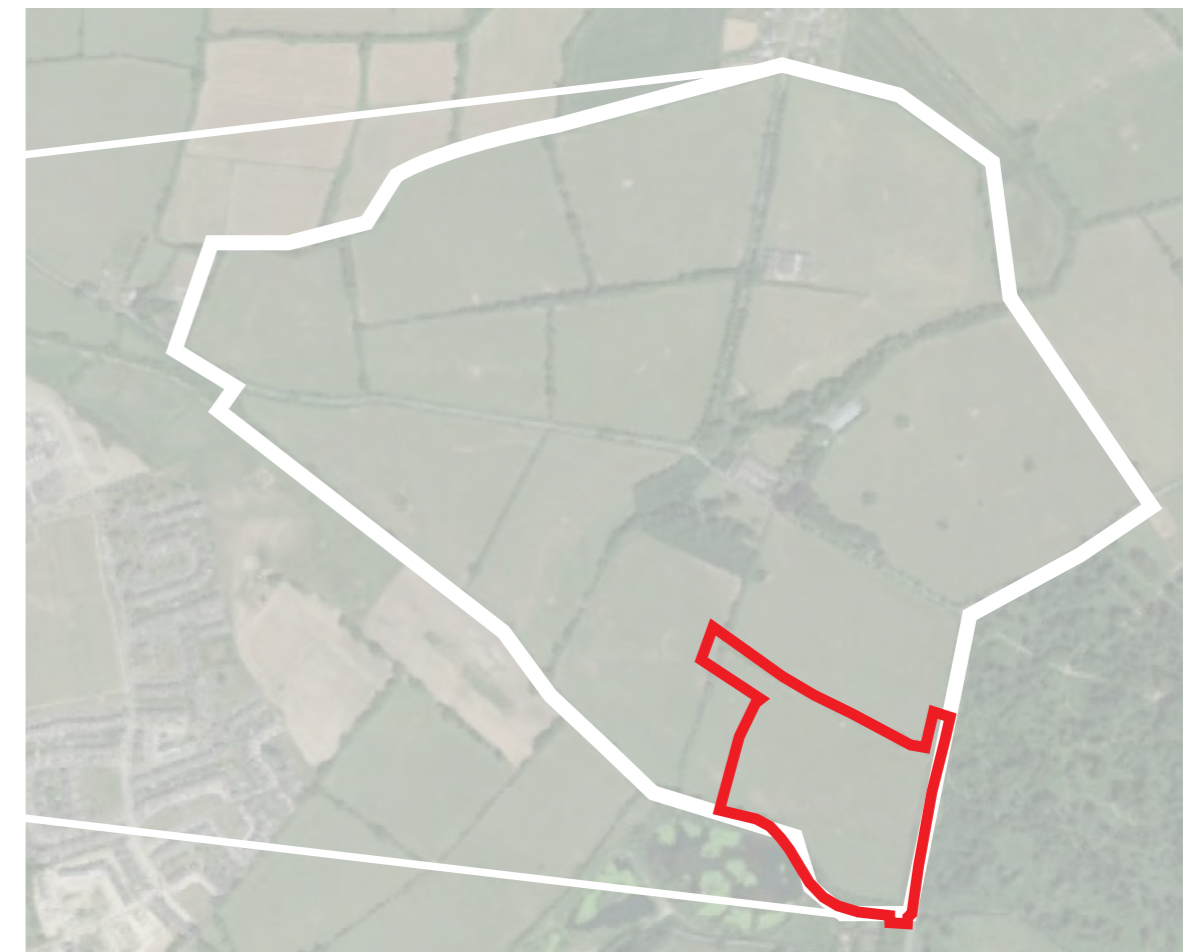
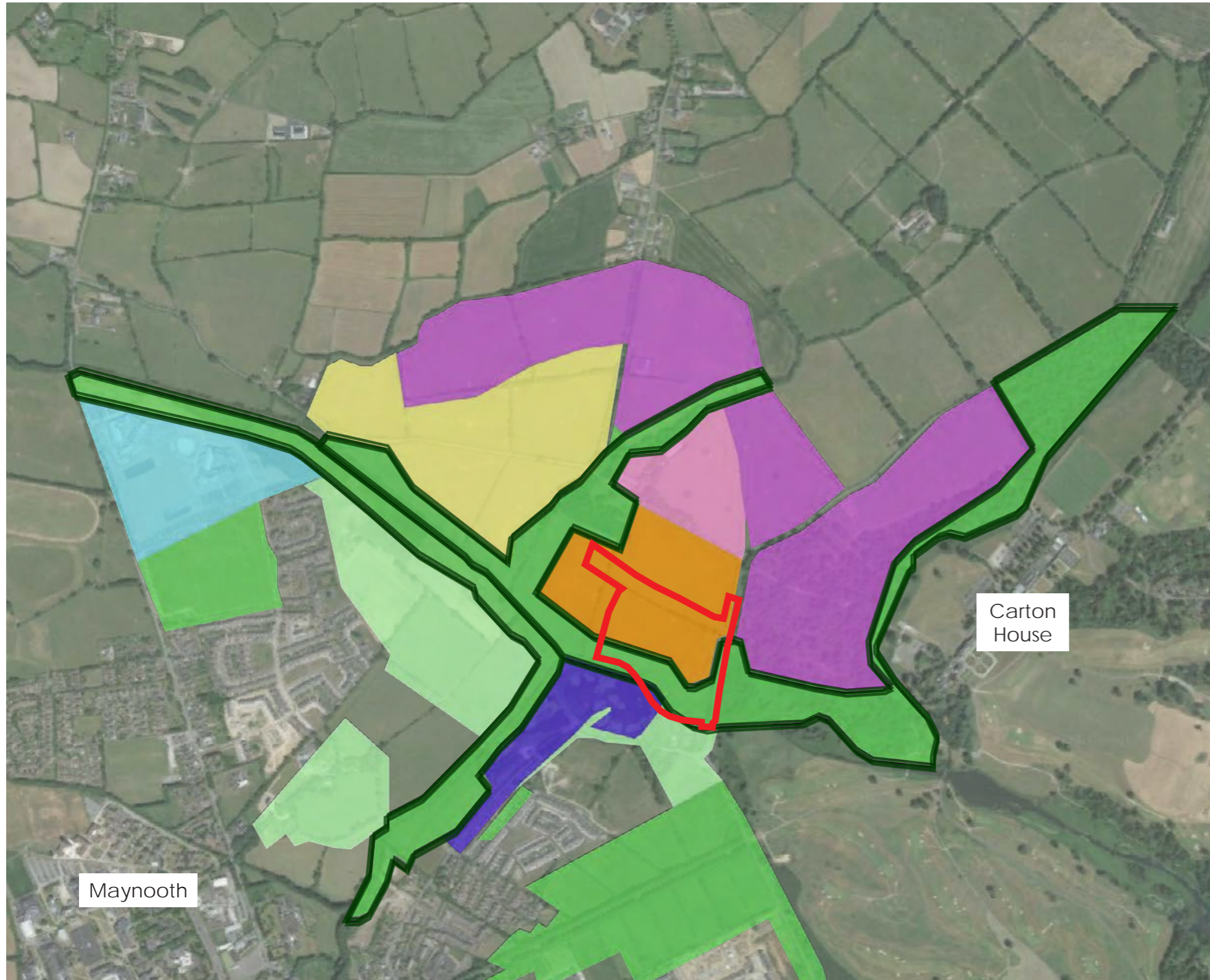


Figure 2

 Proposed Site Location

Planning Permission is sought by Sky Castle Limited for the development of a site which extends to 7.94 hectares, on land to the west of the R157 Dunboyne Road, County Meath, north of the town of Maynooth, in the townland of Moygaddy. This site is located in the Maynooth Environ Lands.





Land Use Zonings:

-  Subject Site
-  Strategic Employment
-  Tourism
-  Community Infrastructure
-  High Amenity - Future Public & Riverside Walks
-  Proposed Residential
-  Education (under construction)
-  Lyreen Angling Centre



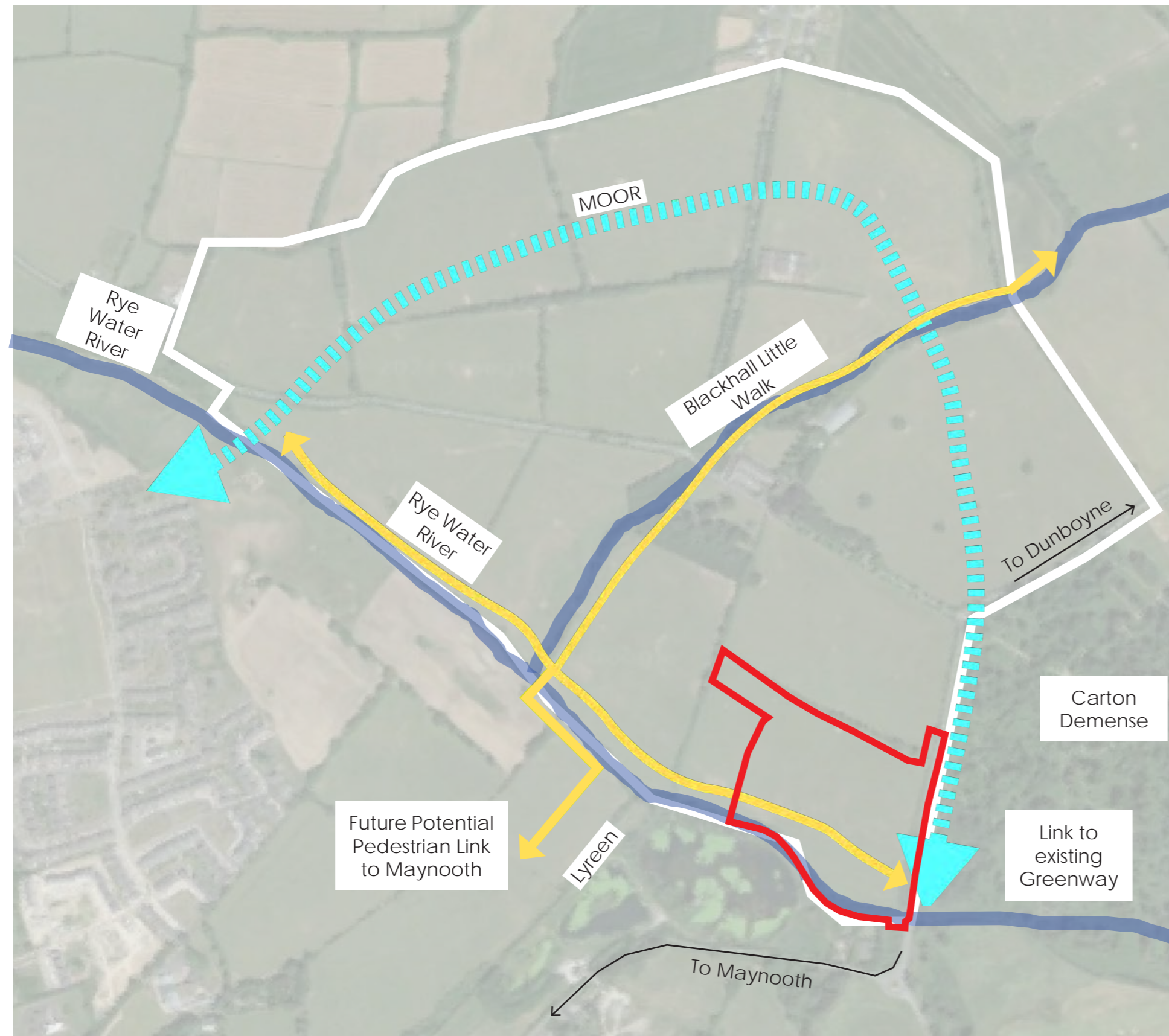
Masterplan Phasing



- Community Infrastructure Zone
- Residential
- Strategic Employment Zone
- Tourism Zone
- High Amenity Area



Development Connectivity Context



- Riverside Walk
- New Road Access / MOOR

Connectivity

A key objective of the design brief is to reduce car dependency by providing high quality pedestrian and cycle networks. The provision of green infrastructure and walking and cycle trails will integrate the new development into the existing landscape.

The design brief is to promote permeability throughout the entire masterplan area to facilitate the phased delivery of direct pedestrian and cycle linkages with the town of Maynooth and surrounding amenities.

As part of the wider masterplan, this Primary Care Centre & Nursing Home Development proposal will deliver a section of the Rye Water River Walk which will ultimately be linked to the future residential phases of the masterplan, located to the west. The Rye Water River Walk will be delivered in an intergrated and phased manner.



DESIGN PROPOSAL





This Landscape proposal for the Primary Care Centre and Nursing Home is an integral subset of the landscape strategy for the wider masterplan for the entire Moygaddy landbank.

The proposal strives to create a unique landscape identity, which will provide a positive quality of life for resident, visitors, and staff at the proposed Primary Care Centre and Nursing Home.

The landscape proposals primary aim is to make a positive contribution to the physical and psychological needs of the patients and staff at the new community healthcare facilities. An abundance of foliage, textures, blooms, and trees are proposed to help stimulate the senses and to promote therapeutic benefits, creating an engaging setting to live, work within, and visit.

The Nursing Home will have two courtyards for use by the residents. The design of these courtyards seeks support privacy, security, and safety, while creating a comfortable environment with a range of uses. The landscape spaces are designed to cater for both communal and personal use at a more intimate scale for individuals.

Easily identifiable circulation routes and boundaries help define site legibility and encourage residents to explore the various gardens. Path and boundary materials have been considered for their durability, aesthetic quality, accessibility, and to account for the needs of residents.

The external landscape surrounding the Primary Care Centre and Nursing Home has been designed to create a Riverside Walkway/ Greenway along the Rye Water River which will integrate into the landscape strategy for the wider masterplan area.



Landscape Masterplan



- LEGEND**
- Boundary Line**
 - Trees Retained**
 - Trees Removed**
 - Hedgerows Retained**
 - Hedgerows Removed**
- SOFT LANDSCAPE**
- Proposed Tree Planting**
Street Trees: *Tilia tomentosa* 'Brabant', *Carpinus betulus* 'Fastigiata', *Alnus glutinosa*, *Amelanchier lamarckii*, *Sorbus aucuparia*, *Quercus robur* 'Koster', *Tilia cordata* 'Greenspire'. **Open Space Tree:** *Betula pendula*, *Cercis canadensis*, *Acer platanoides* 'Columnare'. **Multistemmed Trees:** *Prunus avium* 'Plena', *Sorbus aria*, *Malus* 'John Downie'
- G1 Amenity Grass**
300mm min. Topsoil depth
 - G2 Mounded Amenity Grass**
300mm topsoil depth
 - M1 - Wild Flower - Wet Meadow Mix**
This mix has a colourful range of species for wet soils, including sites which are occasionally flooded or waterlogged for short periods. There are 19 wildflower & 7 grass, rush & sedge species in this mix.
 - S1 - Shrub Planting**
450mm topsoil depth
- Structural Hedgerow (450mm topsoil depth / 100cm single row)**
- | Species Name | Specification | Centres |
|--------------------------|------------------|---------|
| <i>Prunus lusitanica</i> | c/g 3L 100cm ht. | 500mm |
- Native Hedgerow (450mm topsoil depth / 100cm Double Staggered Row)**
- | Species Name | Specification | Centres |
|--|--------------------|---------|
| <i>Craetagus monogyna</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Prunus spinosa</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Ilex aquifolium</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Rosa canina</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Lonicera periclymenum</i> 'Graham Thomas' | c/g 2L 40-60cm ht. | 500mm |
- HARD LANDSCAPE**
- Concrete Footpath**
In-situ concrete. Brushed with trowel edge finish
 - Main Roadway**
Tarmacadam, with in-situ concrete kerbs
 - Feature Paving**
Tobermore Permeable Paving Dim. 200x100x80mm. Colour tbd, with 200mm wide charcoal soldier course border
 - Feature Paving**
Tobermore Permeable Paving Dim. 200x100x80mm. Colour tbd, with 200mm wide charcoal soldier course border
 - Parking - Permeable Surface**
Permeable tarmac, or similar approved
 - Compacted Gravel Surface**
Ballyusk or similar, as approved
 - Services**
 - Proposed Entrance Signage Location**
 - Bike Parking Spaces**
- LANDSCAPE FURNITURE / FEATURES**
- Benches**
Hartecast HC2001S Bench or similar approved
 - Parkland Railing / Gate Access (1.2m high)**
(3 Bar Powder Coated Black) or similar approved.
 - Timber Post & Rail Fence / Gate Access (1.4m high)**
or similar approved.



Zoned Open Space as per Development Plan



Flood Zone



Landscape Moodboard



Upright trees to frame buildings



Communal Seating Areas



Pollinator Friendly Planting



Place for Reflection



Tree lined paths



Circulation

Pedestrian & Cycle Access & Connectivity



Connectivity

A key objective of the scheme is to create a setting where pedestrian experience is a priority. A palette of high quality landscape materials has been suggested to facilitate legible and comfortable movement within the site and to street linkages with surrounding opportunities.

The riverside walk will connect to the wider parkland that is envisaged as a part of the wider masterplan proposals which are the subject of separate planning applications. The design brief is to create an exemplar of sustainable development, providing opportunities for habitat management and conservation, recreation, tourism and education.



Boundary Treatment

Proposed Plan



Structural Hedge Planting
1m high



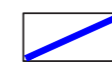
Native Hedgerow
.6m high



Parkland Railing
1.2m high



Timber Post and Rail Fence
1.4m high



Parkland Railing / Gate Access (1.2m high)
(3 Bar Powder Coated Black) or similar approved.



Timber Post & Rail Fence / Gate Access (1.4m high)
or similar approved.



Structural Hedgerow (450mm topsoil depth / 100cm single row)

| Species Name | Specification | Centres |
|--------------------------|------------------|---------|
| <i>Prunus lusitanica</i> | c/g 3L 100cm ht. | 500mm |



Native Hedgerow (450mm topsoil depth / 100cm Double Staggered Row)

| Species Name | Specification | Centres |
|--|--------------------|---------|
| <i>Craetagus monogyna</i> | c/g 2L 40-60cm ht. | 500mm |
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| <i>Ilex aquifolium</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Rosa canina</i> | c/g 2L 40-60cm ht. | 500mm |
| <i>Lonicera periclymenum</i> 'Graham Thomas' | c/g 2L 40-60cm ht. | 500mm |

Landscape Sections



Arboricultural Impact

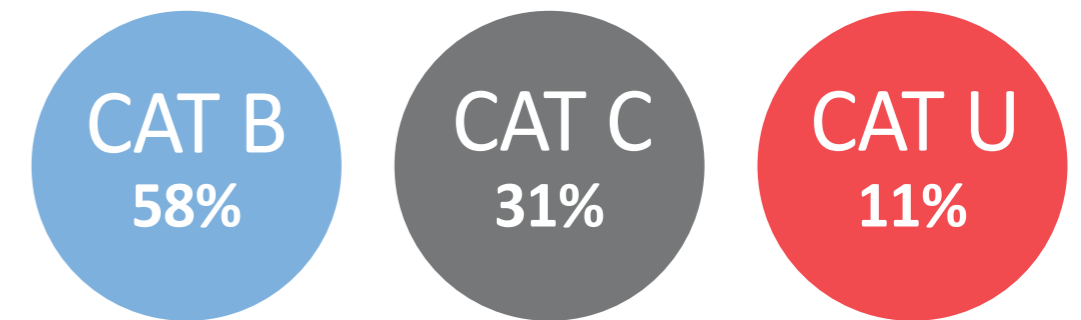


EXISTING TREES

27no.

The design brief is to minimise the input upon the existing landscape to the maximum extent possible and to retain and augment existing trees and hedgerows. A total of 27 trees were identified and assessed.

The condition of trees are moderate to low quality, distributed across the north and south boundaries.



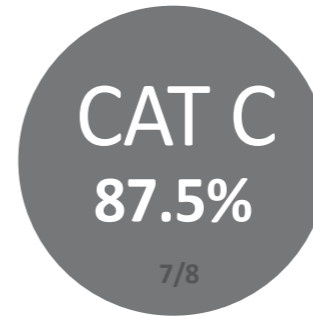
% of the total number of the existing trees

Arboricultural Impact



RETAINED TREES

23no.

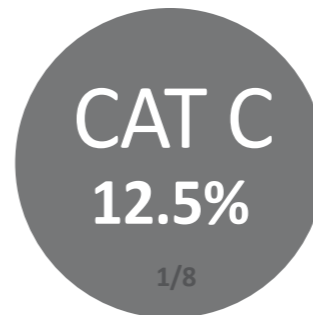


% of the total in category



REMOVED TREES

4no.



% of the total in category

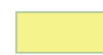
1no. tree is due for removal as a result of the proposed road upgrades.



Retained Trees & Hedgerows



Existing Trees



Existing Hedgerows to be retained, and augmented where necessary with native species



Existing Hedgerow - Aerial View

The landscape design proposal aims to preserve the former agricultural vernacular by retaining the existing landscape structure of field boundaries, and where possible, by maintaining existing hedges and boundary trees.

This includes the hedgerow along the northern boundary and most of the hedgerow that runs parallel to the R157 (although a small section will be lost to facilitate the creation of a new roadway entrance). Retention and protection of mature vegetation and established hedgerows will ensure there is minimal impacts on biodiversity and it will allow the existing hedgerows their continued function as a wildlife corridor for the area.



LANDSCAPE FEATURES





1 COMMUNAL SEATING



2 TIMBER SEATING



3 LANDSCAPE STRUCTURES



4 BICYCLE PARKING



Hard Landscape Palette

Finishes

ELEMENTS PALETTE

Wooden seating element



Omos Seating s96w Seat
Or similar Approved



Flush Slipform
Concrete Kerb



Sheffield Cycle Stands
- 1000mm x 1000mm

IN-SITU SURFACES



Brushed Concrete with
trowel edge finish (streets)



Tarmac



Permeable Asphalt

PAVING PALETTE

Light coloured flags to maximum light within courtyards w/
contrasting paving blocks



Tobermore City Pavers
- Graphite 300x150x100mm



Tobermore City Pavers
- Silver 300x150x100mm

SURFACE PALETTE

Resin-bound surfacing for high impact areas across the
development



Ballylusk Dust Path
(pedestrian path)



Coloured tarmac
(cycle path)

TRAFFIC AREA & PARKING



Grasscrete Parking Bay



Country Kerb & Edge

Landscape Treatments

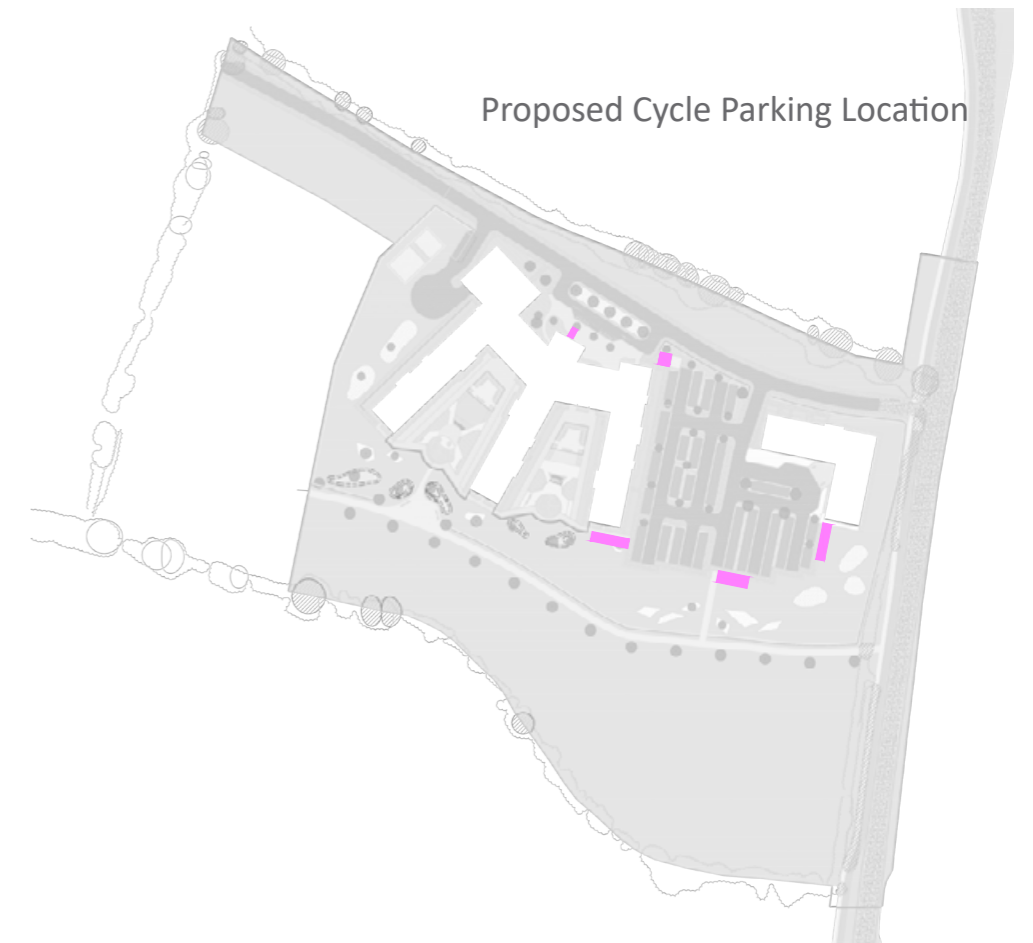
Cycle Storage



Sheffield Cycle Stand Root Fixedor similar Approved



Covered Cycle Storage Area



Proposed Cycle Parking Location

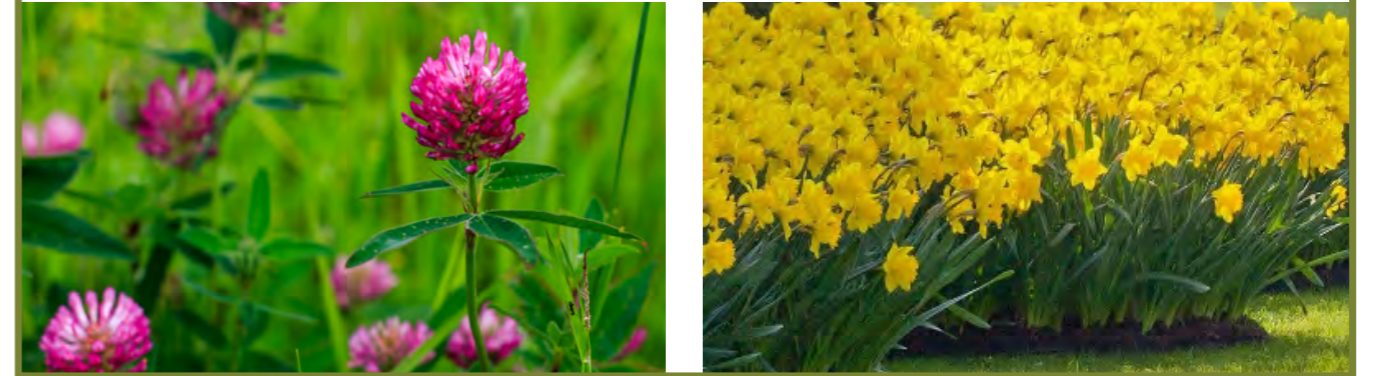


Proposed Planting

Soft Landscape Plan



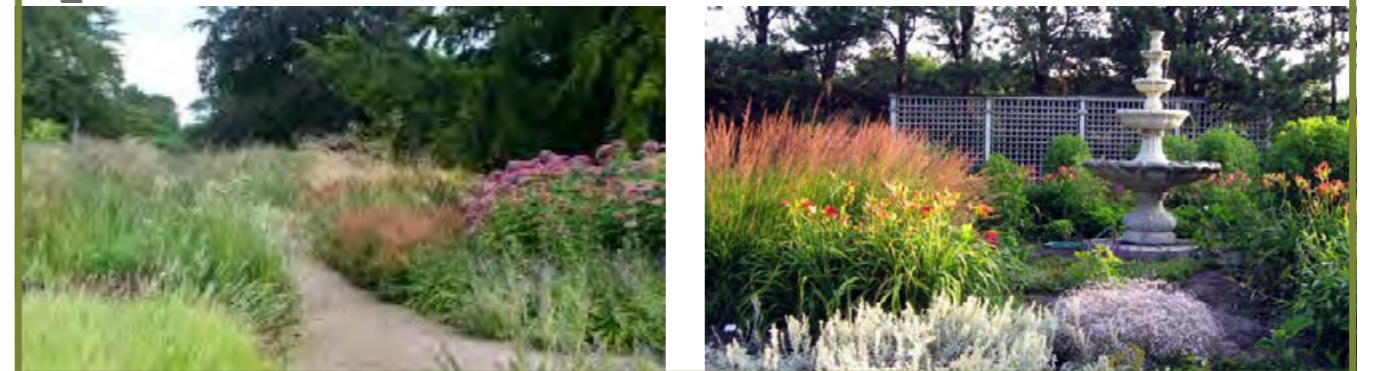
1_ WILDFLOWER & BULBS PLANTING



2_ ORNAMENTAL PLANTING



3_ SENSORY PLANTING



4_ SPECIMEN TREES







5_ MULTI STEMMED TREES



Proposed Planting

Retained & Enhanced Biodiversity



-  Proposed Shrub Planting
-  Proposed Wildflower Planting
-  Proposed Hedgerow
-  Existing Hedgerows (Retained & Augmented)

Retention and enhancement of biodiversity ensures that the natural, cultural, and health requirements of communities are integrated into the new development.

This green infrastructure proposal follows an overarching strategy of protecting, creating, enhancing, and connecting the natural heritage and biodiversity value of the lands.

Existing trees and hedgerows are to be retained where possible, along the site boundary around which passive and active open space areas are arranged.

The provision of 100no. new trees, along with shrub and wildflower planting seeks to maximise the environmental benefits and habitat creation.

Additional native hedgerow planting is also proposed throughout the site and will provide commuting and nesting habitat for a variety of species. New native hedgerows are linked with existing hedgerows where possible to enhance and create ecological corridors.



Proposed Planting

Street and Open Space Trees

100no.



Entrance Plaza
12-14cm
Amelanchier lamarckii



Multistemmed Trees 12-14cm
Prunus avium 'Plena'
Malus 'John Downie'^
Betula utilis var. jaquemontii



Street Trees 14-16cm
Tilia tomentosa 'Brabant'
Carpinus betulus 'Fastigiata'
Tilia cordata 'Greenspire'^
calleryana 'Chanticleer'
Sorbus acuparia^



Pyrus



Open Space 14-16cm / 20-25cm

Betula pendula
Pinus sylvestris
Alnus glutinosa
Quercus robur



Quercus robur 'Koster'
Aesculus hippocastanum^
Fagus sylvatica
Prunus avium^



Proposed Planting

Shrubs - To Private Spaces



Persicaria affine



Bergenia cordifolia



Libertia grandiflora



Aucuba japonica



Prunus 'Otto luyken'



Lavandula angustifolia



Hypericum hidcote



Astelia 'Silver Spear'



Agapanthus 'Blue Giant'



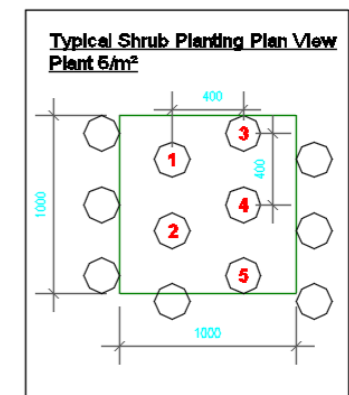
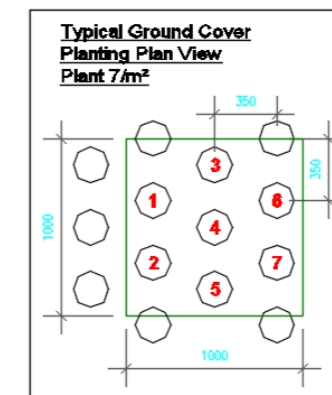
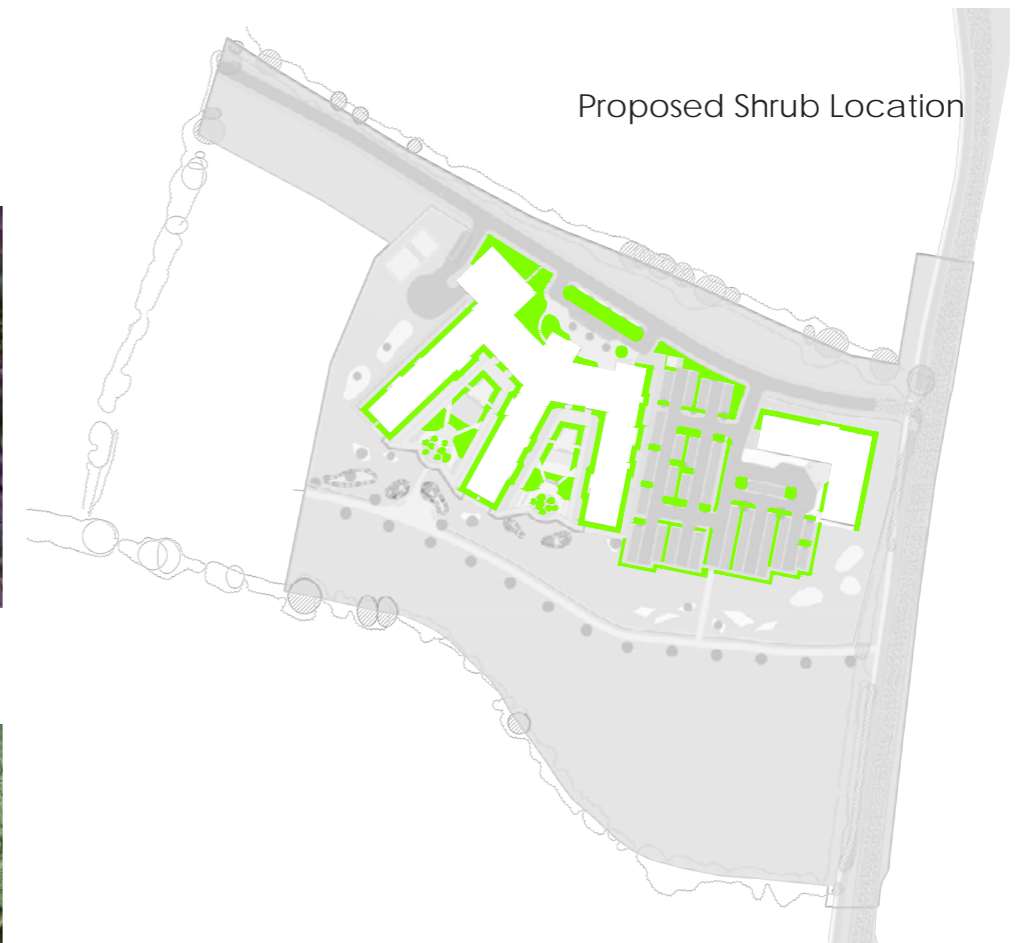
Kniphofia 'Royal standard'



Nerine bowdenii



Sedum spectabile



Proposed Planting

Hedgerows

H1 - Hedgerow Planting Detail

Hedge mix
60-90mm

100% *Prunus lusitanica*

50 x 50 stake tied with a single rubber gut tie.
2 rows @ 500mm centres -400mm apart,



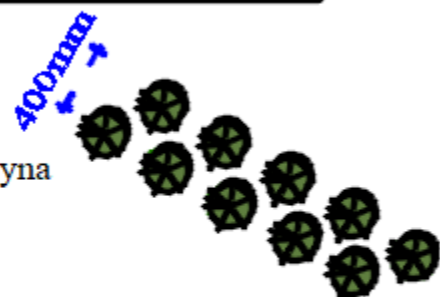
Hedge Type 1 Mix
Prunus lusitanica Hedge

H2 - Hedgerow Planting Detail

Hedge mix
60-90mm

Crataegus monogyna
Prunus spinosa
Ilex aquifolium

50 x 50 stake tied with a single rubber gut tie.
2 rows @ 500mm centres -400mm apart,



Hedge Type 2 Mix
Prunus spinosa



Hedge Type 2 Mix
Crataegus monogyna



Hedge Type 2 Mix
Ilex aquifolium



Native hedgerows will be maintained and managed for wildlife, this includes allowing hedgerows to grow wide and dense at the base, with a wide, uncultivated grassy margin. Hedgerows should be allowed to mature before the first cut and future cutting should happen on a 3/5-year rotation. Hedgerows should be kept as dark spaces to allow commuting and foraging habitat for local wildlife.



Proposed Planting

Wildflower Mix



Marsh Thistle
Cirsium palustre



Common Knapweed
Centaurea nigra



Sneezewort
Achillea ptarmica



Meadowsweet
Filipendula ulmaria



Common Bent
Agrostis capillaris



Meadow Foxtail
Alopecurus pratensis



Oval Sedge
Carex ovalis



Tufted Hair Grass
Deschampsia caespitosa



Red Fescue
Festuca rubra



Reed Canary Grass
Phalaris arundinacea



Smooth-stalked Meadow
Grass - *Poa pratensis*



Devils-bit Scabious
Succisa pratensis



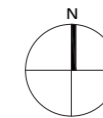
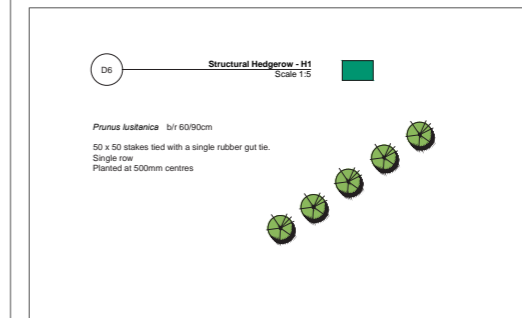
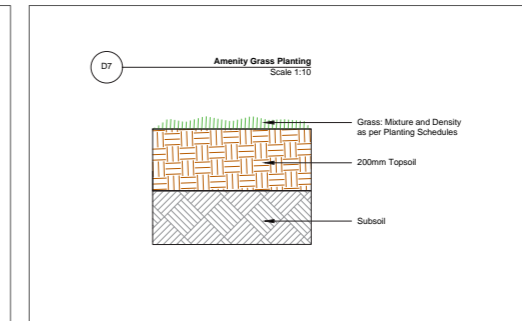
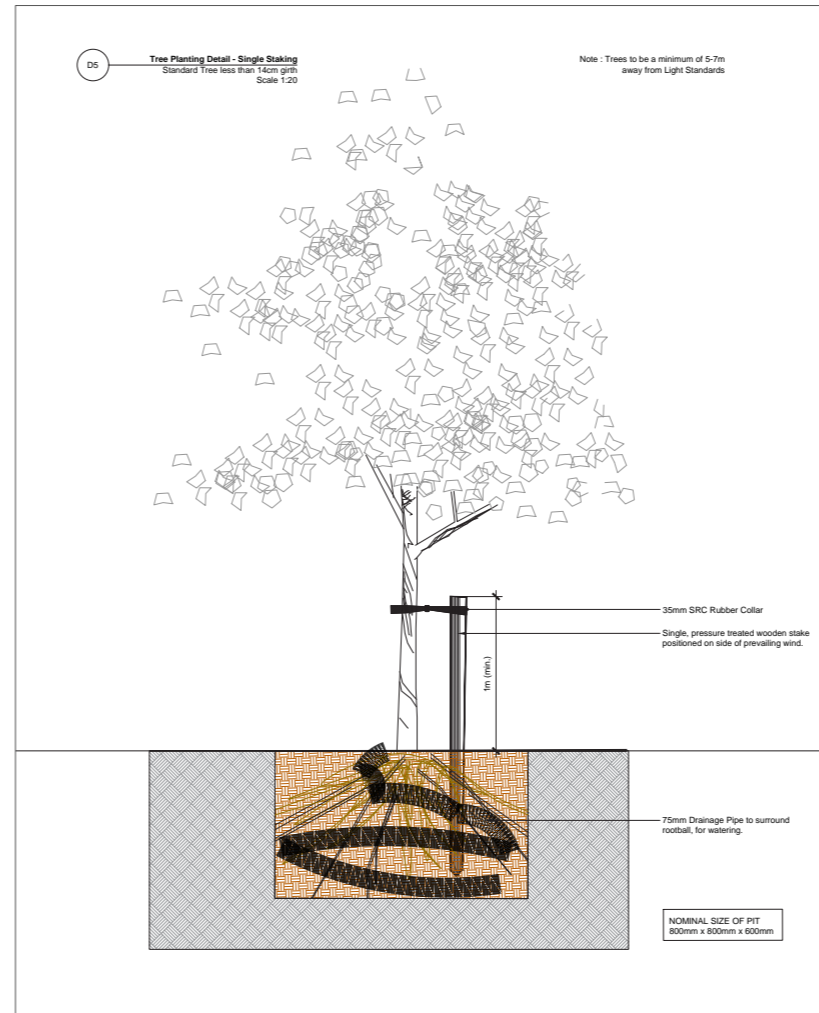
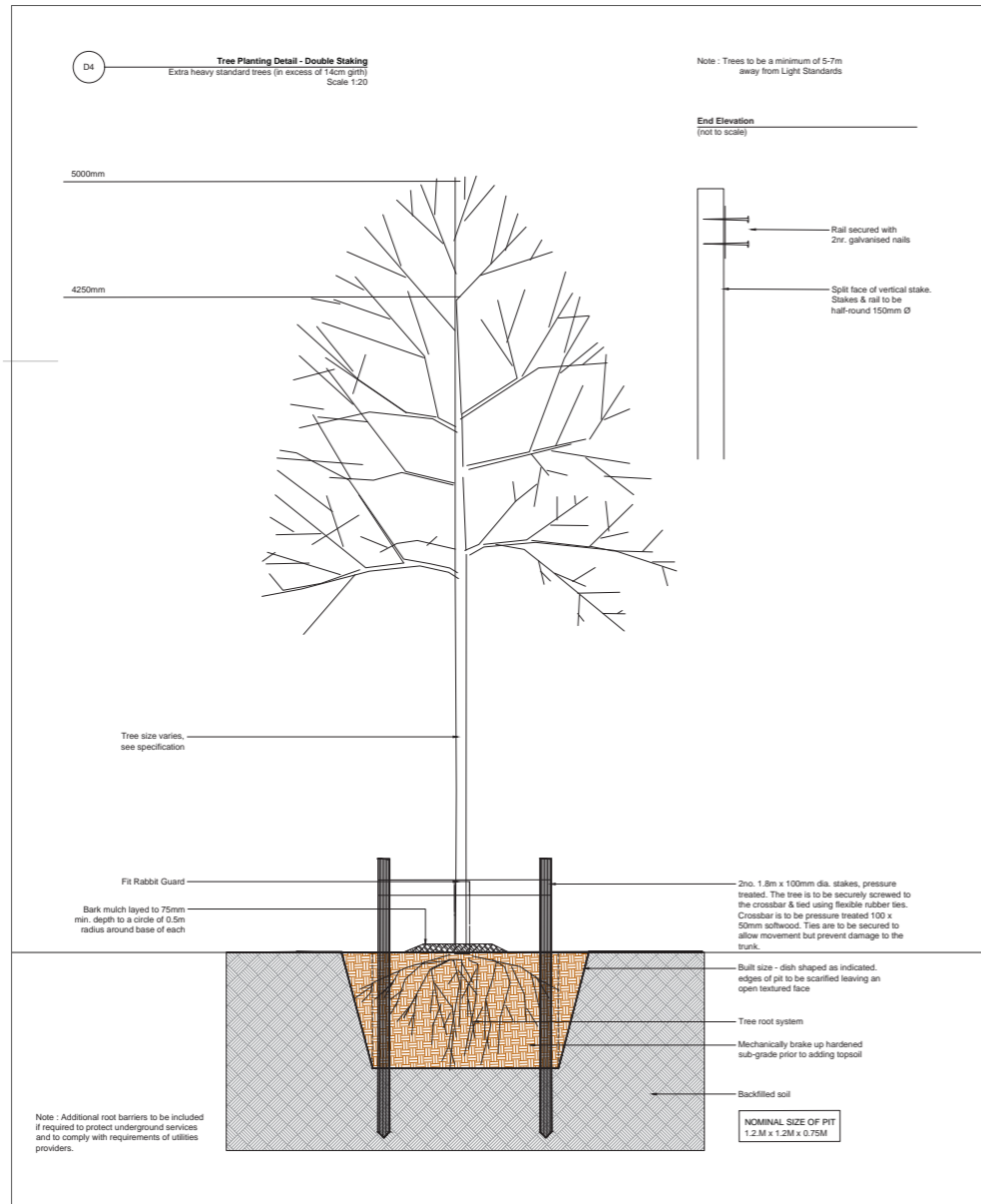
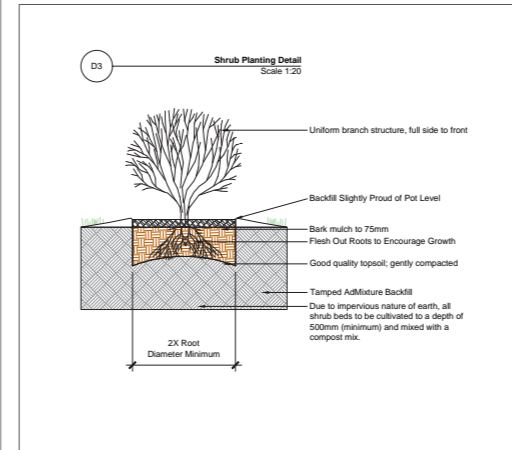
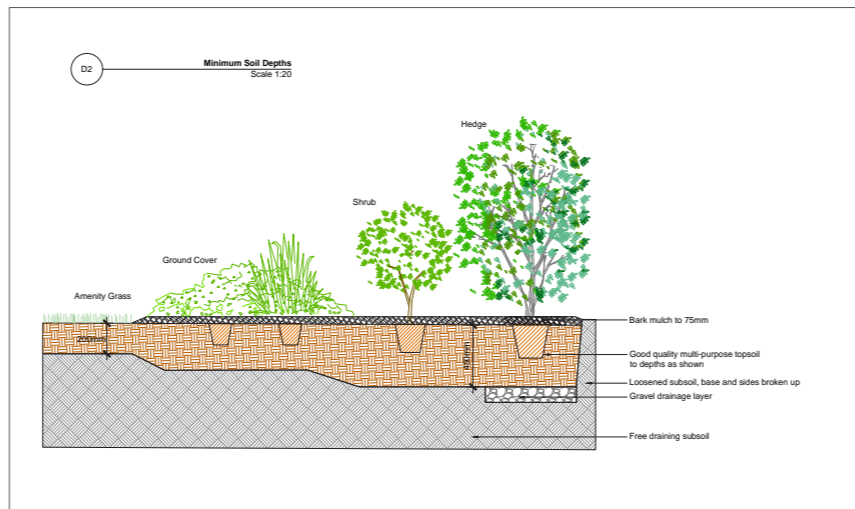
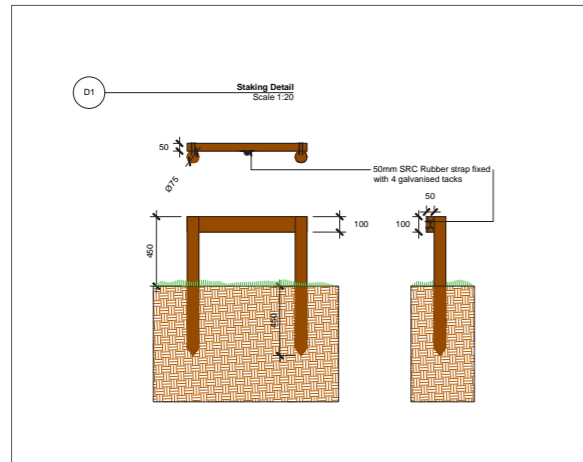
Native wildflower meadows are proposed and will provide a food source for local pollinators. The wildflower meadows will be managed in-line with the All-Ireland Pollinator Plan.

Note: The Wildflower Meadow will need to be cut once in Autumn (Late August/Early September) with a tractor and mower. Leave the mowings for a few days to allow seed to drop to the ground. Then it should be baled and bales removed.








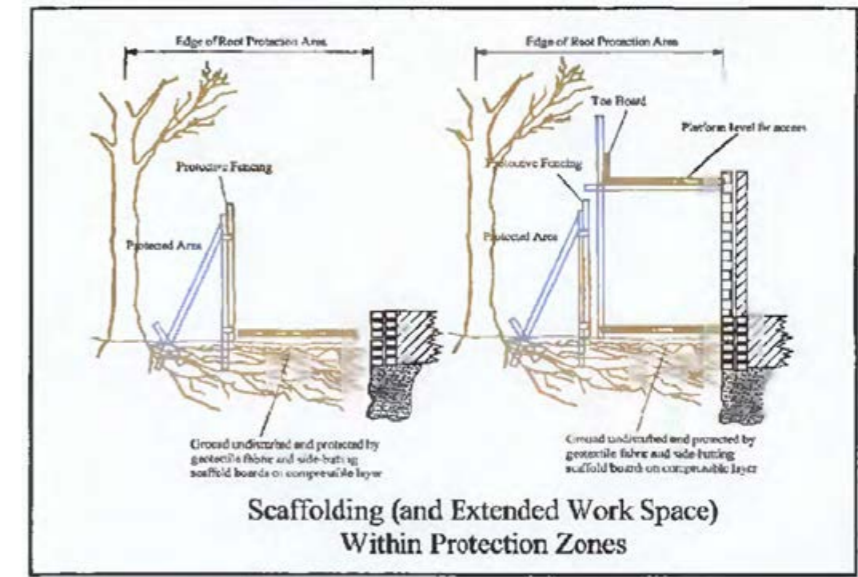
DETAILED DESIGN



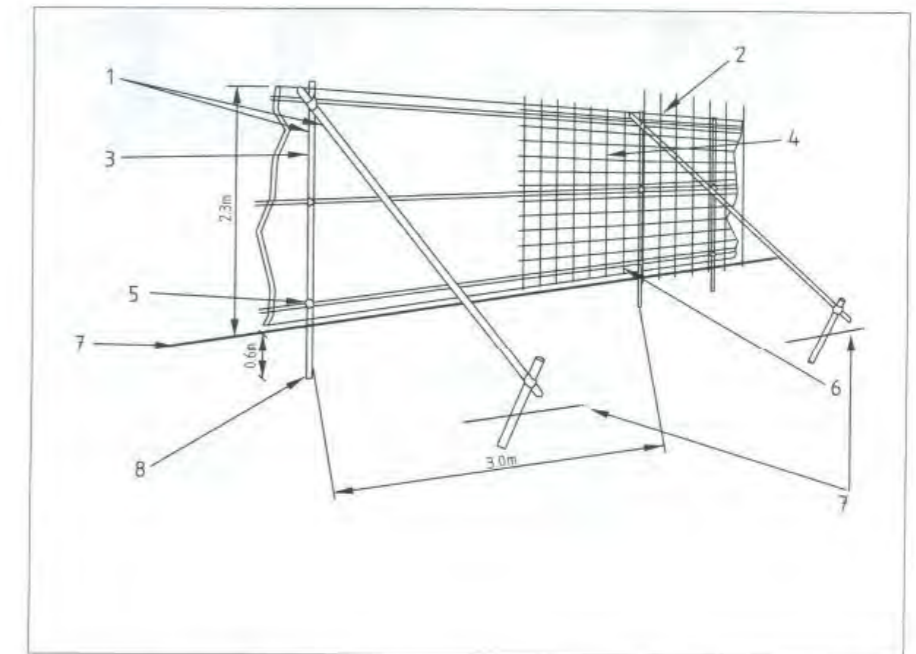




-  Location of Tree Protection
-  Existing Tree to be retained on site
-  Existing Tree to be removed
-  Existing Hedge to be retained
-  Existing Hedge to be removed

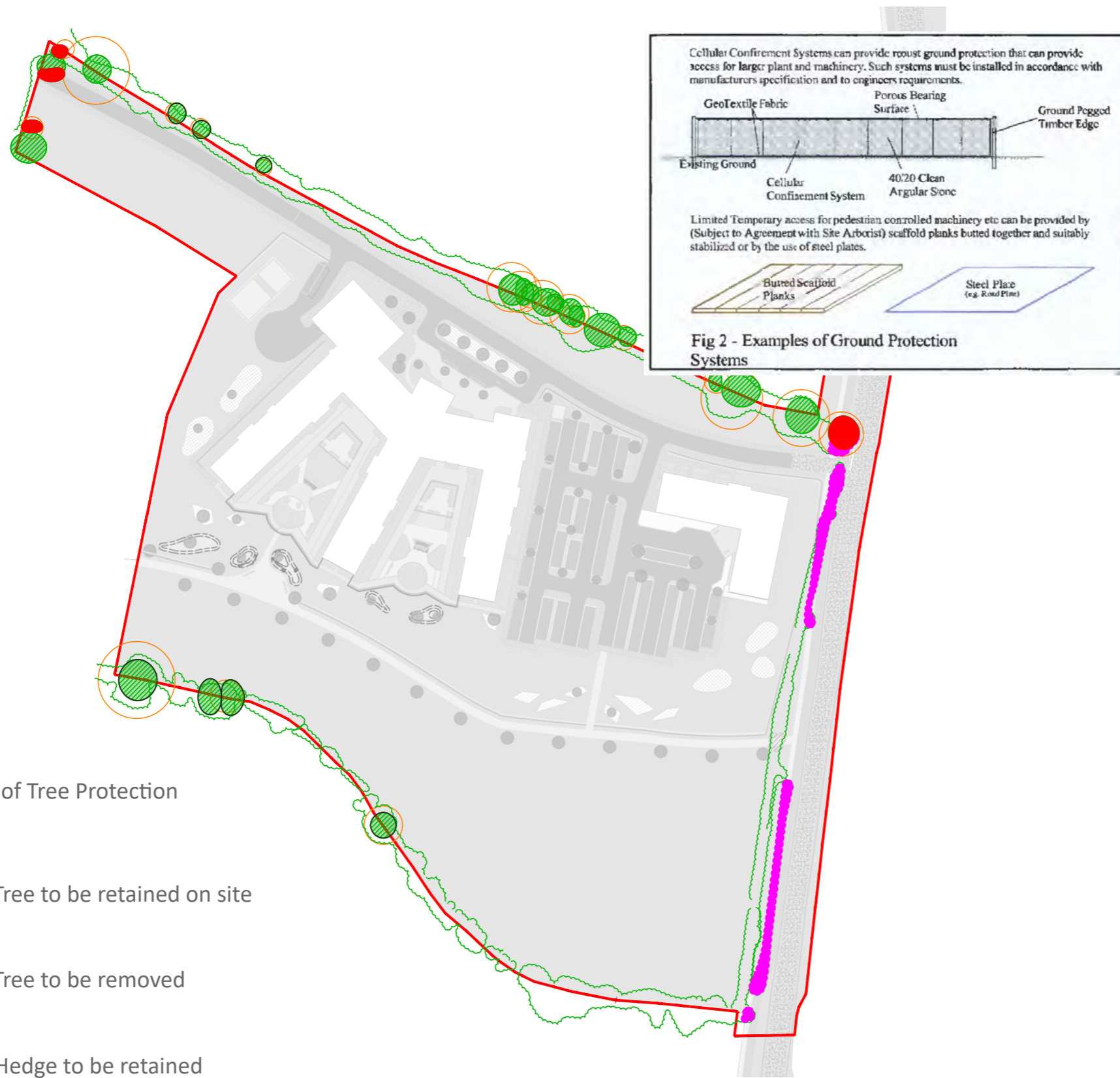





Appendix 1. - Protective Barrier



The above displays an example of a suitable protective barrier as recommended by BS. 5837 2012 *Trees in Relation to Construction*

1. Standard scaffold poles
2. Uprights to be driven into the ground
3. Panels secured to uprights with wire ties and where necessary standard scaffold poles
4. Weld mesh wired to the uprights and horizontals
5. Standard clamps
6. Wire twisted and secured on the inside of fencing to avoid easy dismantling
7. Ground level
8. Approx. 0.6m driven into the ground



-  Location of Tree Protection
-  Existing Tree to be retained on site
-  Existing Tree to be removed
-  Existing Hedge to be retained
-  Existing Hedge to be removed

The tree protection fencing is to be erected enclosing the root protection areas around the trees being retained as shown on this drawing and appendix 1. In some areas, the site hoarding may be sufficient to act as the protective fencing if the tree and its root zone are positioned outside and no works are envisaged within the area outside the site hoarding. This will need to be discussed and agreed at the initial site meeting.

Where tree protection fencing is needed, this will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 (see detail on drawing & appendix 1) using vertical and horizontal scaffold bars or similar well braced together with the verticals spaced out at a maximum of 3m centres. Onto this, weld mesh panels (harris fence panels) are to be securely fixed with wire or scaffold clamps.

Signs are to be attached to these fences warning people that this is a protective area and that the fencing must be maintained in good condition in accordance with the approved plans and drawings for this development.

Once the protective fence line is erected, then the main construction works can commence on site.

The following is a list of activities that are not allowed within the RPA or within the vicinity of the trees being retained.

- Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials.
- Protect root systems from ponding, eroding, or excessive wetting caused during construction operations.
- Do not store construction materials, debris, or excavated material inside tree protection zones. When excavating, place excavated soil on opposite side of trench away from the tree.
- Do not permit vehicles or foot traffic within tree protection zones; prevent soil compaction over root systems.
- Do not allow fires under or adjacent to remaining trees or other plants.
- Do not attach notice boards, cables or other services to any part of the tree.
- Do not use neighbouring trees as anchor points.
- Do not use high machinery such as Tele-porters, cranes or other equipment close to trees to avoid damage to the crown or any other parts.

During the construction works the following is required:

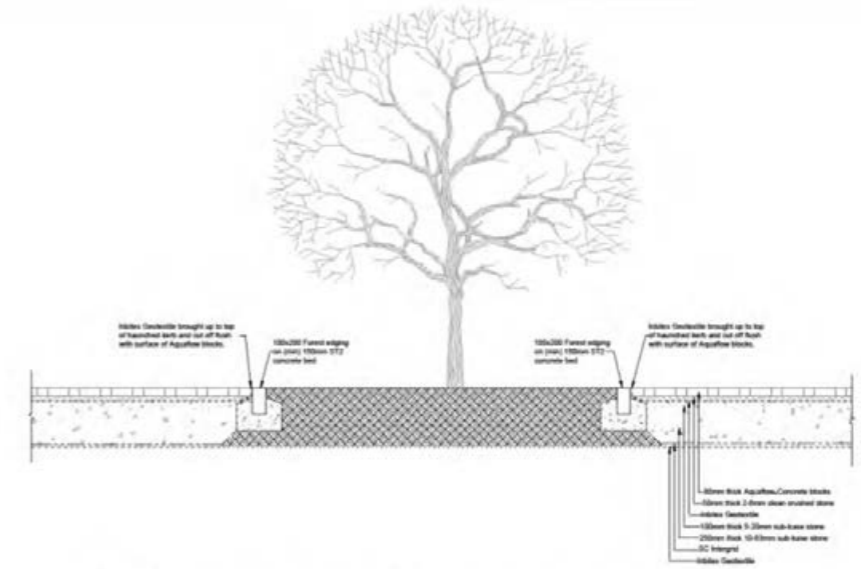
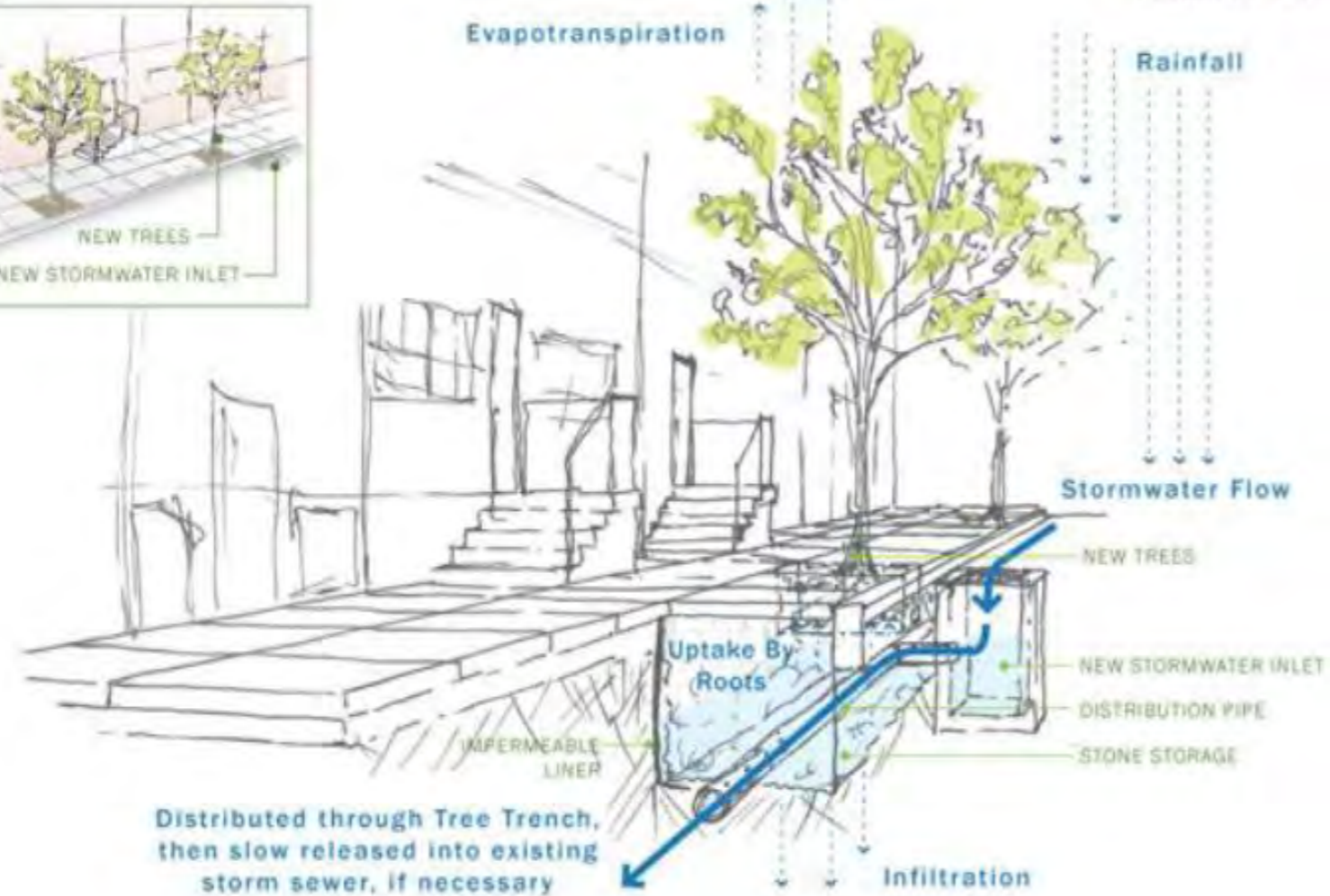
1. The main contractor or site manager is to brief all people working on site on the tree protection measures and the procedure if works need to be carried out within these areas.
2. Storage of Material, Work Yards and staff car parking- are to be identified on the work drawings prior to the construction works starting. These need to be positioned outside the root protection areas around the trees being retained.
3. The main contractor or site manager is to check the tree protective fencing daily and carry out any repairs required to ensure its stays upright and secure.
4. The main contractor or site manager is to liaise with the project Arboriculturist if and when works are to be carried out close to or within the root protection areas around the trees.
5. Any works to occur within the protection areas such as landscaping is to be carried out manually with no machinery allowed. All soft and hard landscaping within the Root Protection Area (RPA) of the trees to be retained are to be carried out manually and the soil levels are not to be lowered or raised resulting in root damage to the trees. Recommendations of sections 8 of BS5837 2012 are to be adhered to during the landscaping within the RPA'S of the trees being retained.
6. The protective fencing around the trees is to stay in position until all the construction works are complete and are only to be removed following discussions and agreement with the project arborist.

GREEN STREETS: STORMWATER TREE TRENCH

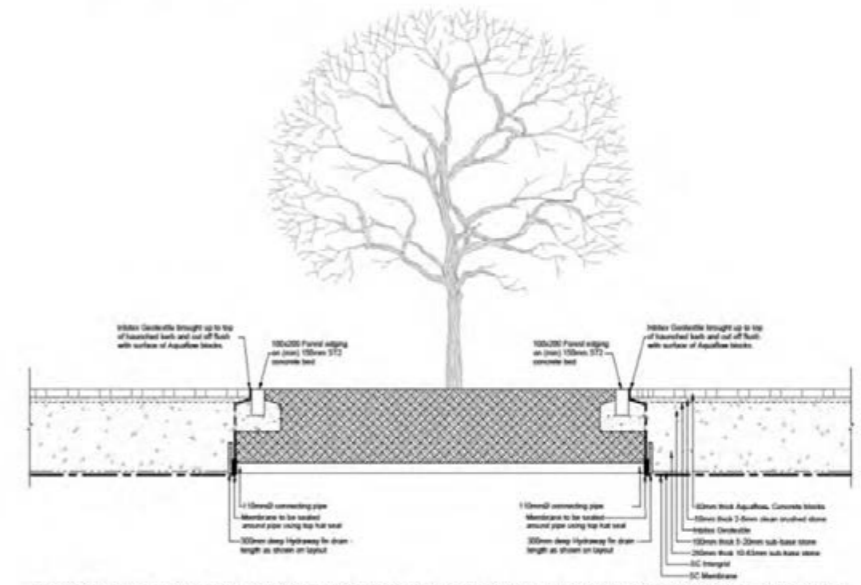
Street View



Subgrade View



TYPICAL SECTION THROUGH FORMPAVE AQUAFLOW INFILTRATION SYSTEM INCORPORATING LANDSCAPED AREA



TYPICAL SECTION THROUGH FORMPAVE AQUAFLOW ATTENUATION SYSTEM INCORPORATING LANDSCAPED AREA AND CONNECTING PIPE



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