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Metropolitan Workshop

Architecture + Urbanism

Comhairle Contae Chill Dara
Kildare County Council

KCC Wonderful Barn

Part 8 Landscape Report

Delivering a better world

Quality information

Prepared by	Checked by	Approved by	Date
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Revision history

Revision	Revision date	Details	Authorised	Position

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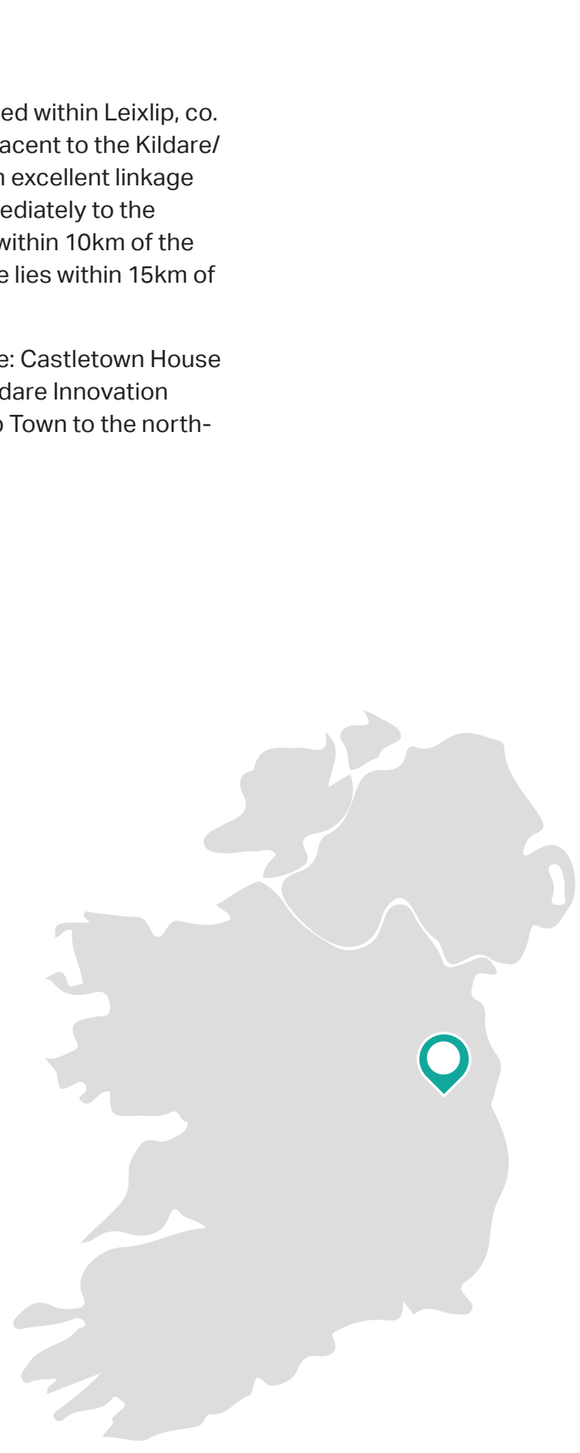
Project Introduction

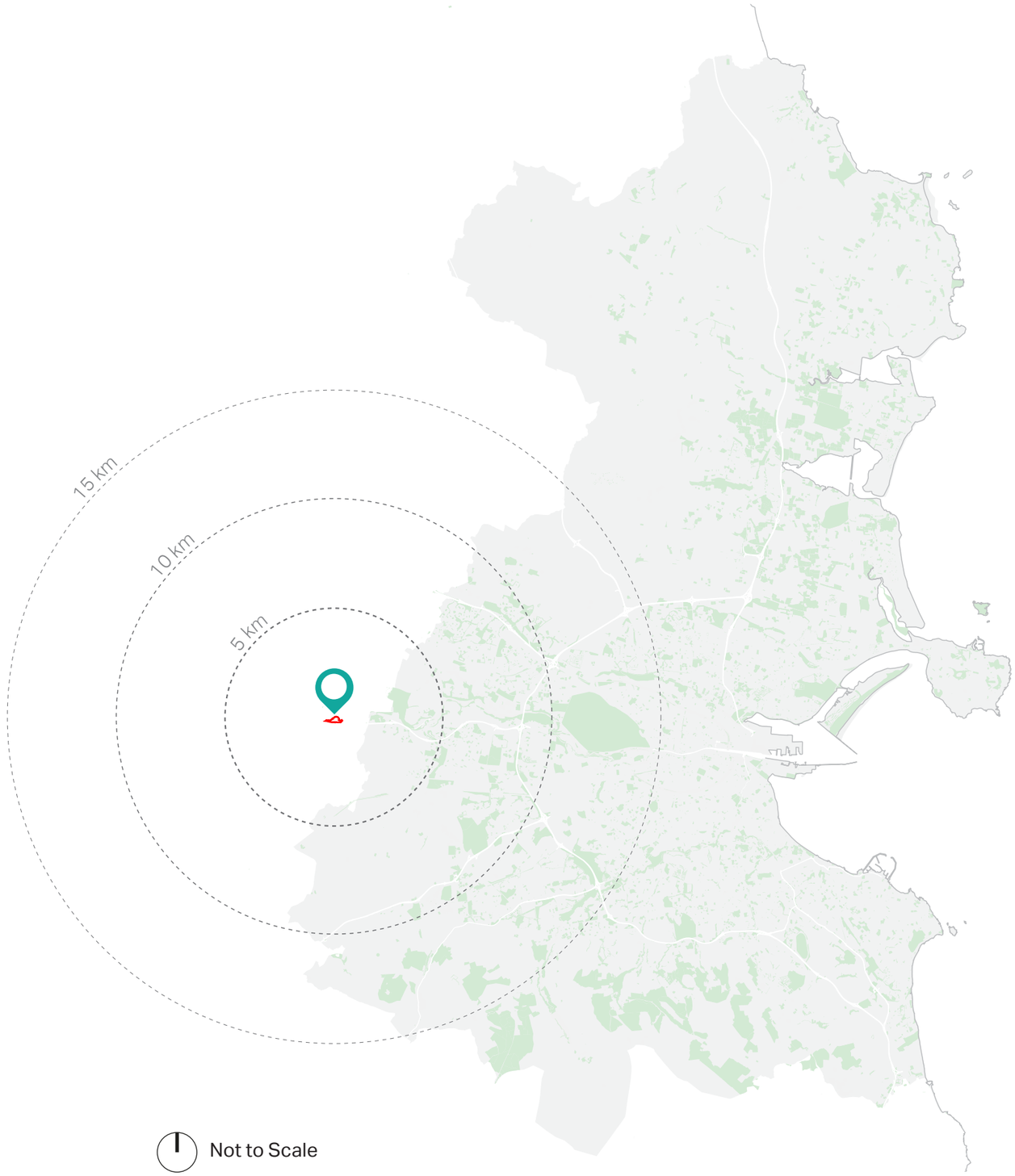
01

Site Location Map

The Wonderful Barn site is located within Leixlip, co. Kildare. The site sits directly adjacent to the Kildare/ Dublin border, and benefits from excellent linkage to Dublin City; The M4 runs immediately to the south, which links into the M50 within 10km of the development. Dublin City Centre lies within 15km of the subject site.

Nearby points of interest include: Castletown House to the south-west, the future Kildare Innovation Campus to the south and Leixlip Town to the north-east.





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Site Overview

AECOM Ireland LTD has been appointed by Metropolitan Workshop on behalf of Kildare County Council to work collaboratively for the Part 8 landscape design as part of the development proposals of the Wonderful Barn and associated landscape. The development proposal will be in line with the local, national, and international guidelines.

The overriding design intention is to create an inclusive and diverse setting to the Wonderful Barn, main house and associated buildings, that reflects the site history and combines with new uses for a variety of users and the wide spread community providing a sense of place, ownership and identity.

Figure 04: Aerial view of site and its surrounding.

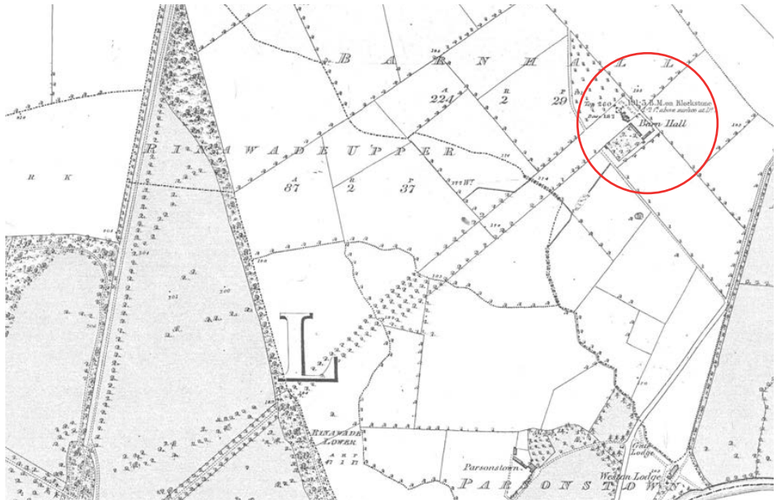


Figure 01: Historic map

Figure 02: The Wonderful Barn and main house

Figure 03: Historic walled garden and community allotments

Policy Context

County Development Plan (2017-2023)

As of February 2017, Kildare County Council have been tasked with enforcing the principles and strategies as outlined in detail in the County Development Plan. The primary aim of this is to ensure, support and promote quality and sustainable development across the county.

Each of the plan's key chapters focus on the delivery of specific objectives. Various objectives relate to the delivery of quality public realm works.

5. Economic Development, Enterprise and Tourism

ECD 16 - High Quality Environment

Ensure a high quality living environment in Kildare which will help to retain the county's indigenous skilled population and attracted additional high skilled labour into the county.

ECD 39 - Festivals

Support and promote existing festivals and sporting events to increase the cultural heritage and lifestyle profile of the county, and where appropriate to promote and facilitate the development of new events.

6. Movement and Transportation

MT 6 - Co-operate with NTA

Co-operate with and support the National Transport Authority and relevant regional agencies to facilitate the planning, delivery and implementation of improvements to the transport network of the county and the Greater Dublin Area.

WC 1 - High quality walking and cycling facilities

Prioritise sustainable modes of travel by the development of high quality walking and cycling facilities within a safe street environment.

WC 8 - Require secure cycle parking

Require the provision of secure cycle parking facilities in towns, at public service destinations and in all new residential and commercial developments.

PK 2 - Design car park

Design car parking layouts in accordance with the Design Manual for Urban Roads and Streets (DMURS) 2013.

PK 8 - Utilise SuDS

Encourage the use of materials and engineering solutions that optimise natural surface water drainage as part of Sustainable Drainage Systems (SuDS).

11. Social, Community and Cultural Development

LEO 1 - Liaise with community for infrastructure

Liaise with community and economic stakeholders to promote the sustainable development of economic and community services and infrastructure tin the county, in accordance with the objectives and actions set out in the KIldare LECP 2016-2021.

C 2 - Promote use of community facilities

Promote the shared use of educational and community facilities for community and non-school purposes where possible, so as to maximise the sustainable use of such infrastructure and promote community cohesion.

C 4 - Promote accessibility

Promote the highest levels of universal accessibility in all community facilities.

SC 2 - Cultural facilities are focal points

Ensure that all arts and cultural facilities in the ownership and management of the Council are accessible to the wider community and to promote the role of these facilities as focal points for the community.

14. Landscape Recreation and Amenity

GI 3: Native Planting

To ensure planting within developments is of native species.

GI 5 - Connect to parks

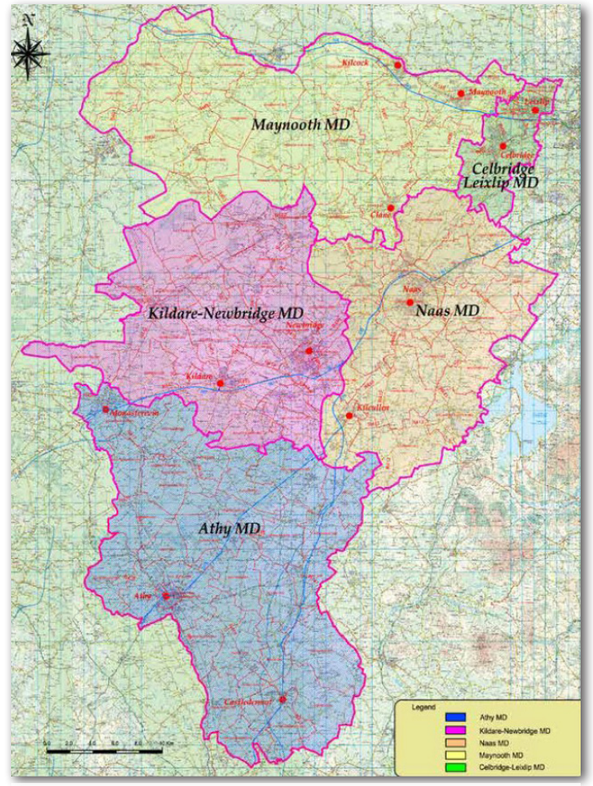
Connect parks and areas of open space with ecological and recreational corridors to aid the movement of biodiversity and people and to strengthen the overall Green Infrastructure network.

15. Urban Design

15.8.9 Sustainable Drainage Systems (SuDS)

SuDS should be an important part of drainage infrastructure of a development....It is important that all development considers the relationship with SuDS as an element of drainage infrastructure as well as a leisure and visual amenity.

The use of swales to retain and discharge water. SuDS should be planted ultilising indigenous species that can withstand both very wet and dry conditions.



Municipal districts in Kildare County

Site Analysis

02

Historical Maps

Overlay of the extent of work for the site and the historical map from 1837 of the Wonderful Barn. The site is part of the wider historic demesne of Castletown House which has a direct view corridor towards the Wonderful Barn acting as a folly in the landscape. This is reinforced by the setting out of the field boundaries and the alignment of vegetation to some of the same. The layout illustrates the built form, as currently on site, and the adjoining courtyard garden to the south and orchard to the north east of the folly.

The site has since been severed by the M4, which delineates the southern boundary of the site, which eliminates the opportunity to reinstate the original access road to the site.

The M4 motorway, the expansions of the Hewlett Packard site to the south, the new entrance route and connecting walkways have all affected the historic landscape.

Information sourced from:

Conservation Report & Feasibility Study (July 2005) Howley Harrington Architects

Historic Landscape Assessment (2011) O'Kane

Leilxip Archaeology Report (2017) Cóilín Ó Drisceoil

Figure 05: Historical map (1837)

01 Wonderful barn and house

02 North courtyards

03 Walled garden

04 Orchard

05 Avenue trees framing view to Castletown House

06 Field boundary trees

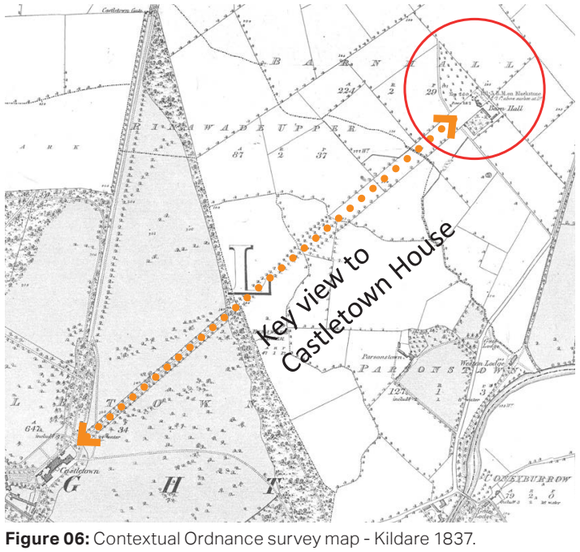


Figure 06: Contextual Ordnance survey map - Kildare 1837.

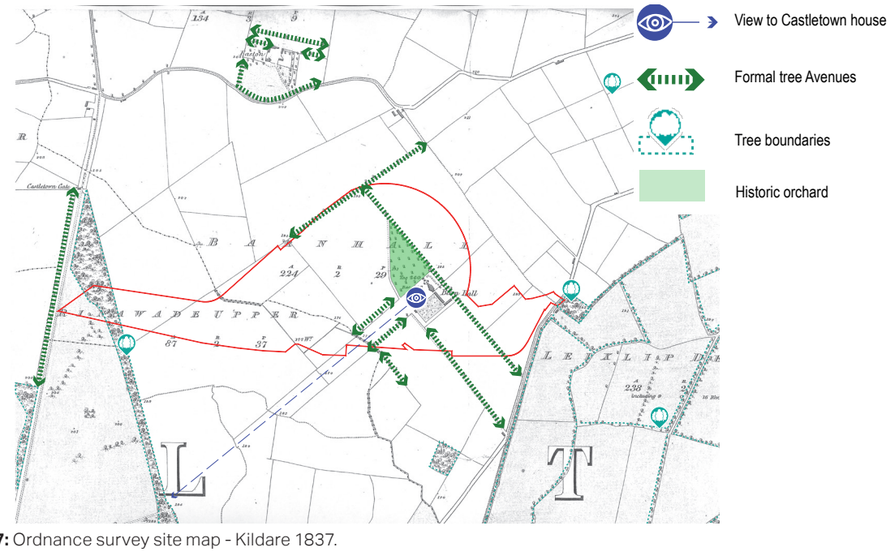


Figure 07: Ordnance survey site map - Kildare 1837.

Historical Analysis

The layout illustrates the built form, as currently on site, with overlain historical elements (i.e. the Wonderful Barn houses, walled garden, orchard, access route to the buildings, and avenue trees and field boundary lines) that have been preserved and would form a basic structure for the future park.

01 Wonderful barn and house

02 North courtyards

03 Historical walled garden

04 Orchard

05 Historical tree avenue line

06 Historical field boundary retained

07 Historical access route to the buildings

Figure 08: Historical alanysis plan

Figure 09: Historical walled garden

Figure 10: Historical tree avenue line to the front of the buildings with existing hedge field boundary and access route

Figure 11: Historical orchard

Figure 12: Historical courtyards to the back of the buildings with a retained historical tree line boundary

Historical Use

- The Wonderful Barn forms a key node within a series of prospects laid out during the course of the eighteenth century in county Kildare.
- Views framed by avenue planting between the Wonderful Barn and Castletown House
- The axis between Back Westown and the Prospect Tower may have fixed the position of the New Barn.
- At a very large scale the barn links together a wider network of prospects.
- At a smaller scale it operated as a large agricultural building set within a compound comprising a dwelling house, outhouses, courtyards, walled garden and orchard.
- This agricultural character is reflected in the clear axial nature of its immediate vicinity and the approach routes roads, field boundaries, walls and gates.
- The plan of Barn Hall in first edition O.S. map indicates that the walled garden was planted as a decorative walled garden with espaliered fruit trees on the walls, quartered diagonally by gravel paths. It would have grown fruit and vegetables for the occupants of Barn Hall and it probably was also planted in areas with flowers.
- The two courtyards to the rear of the barn had quite distinctive characters in 1872. The north courtyard is shown to contain an interlocking series of ponds or platforms, which may be connected to some agricultural function. This courtyard, being directly connected to the house may alternatively have become the family garden with a decorative and leisure-focused planting plan. This would have left the southern courtyard as the working service agricultural courtyard, a character suggested to by the lack of connection between the two courtyards.

Information sourced from:

Conservation Report & Feasibility Study (July 2005) Howley Harrington Architects

Historic Landscape Assessment (2011) O'Kane

Leilxip Archaeology Report (2017) Cóilín Ó Drisceoil

Constraints

- The site has been subject to historic and archaeological assessments and there are a number of recommendations for the restoration of elements of the site gardens and spaces.
- These recommendations of restoration may need to consider the archaeological investigations, historic planting plans, in particular the walled garden, courtyards and orchard.
- Historic routes and paths should be considered in new routes and circulation patterns.
- The large-scale circular geometry of the new development is not considered to be particularly sympathetic to the historic setting however it should connect with the historic landscape.
- The field boundaries, hedges and trees are recommended to be conserved and where possible restored. Some specimen trees are also in evidence in the walled garden and at the collapsed entrance pavilion. Any new planting should integrate with these established horticultural and arboricultural traditions.
- The Wonderful Barn's arboricultural heritage should be conserved and where possible restored with the original tree species if these can be determined, and otherwise using a selected mix of broad-leaved tree species to reflect the landscape's historic character.
- Historical retention/reinstatement may reduce opportunities / options for spacial arrangement and new uses.

Opportunities

- Historic and archaeological assessments guide a number of recommendations for the restoration of elements of the site gardens and spaces which will require research into historic planting plans, in particular the walled garden, courtyards and orchard. These can define/determine spacial use and indicate planting types, that can be implemented as part of new landscape design.
- New routes and circulation patterns can be influenced by historic routes and paths that can be incorporated in a new landscape design.
- The circular geometry of the new development is to connect with the historic landscape through the new landscape design.
- Any new planting is to integrate with established horticultural and arboricultural traditions, however, a more diverse planting species list can be incorporated into the landscape design using the site history as its influence.
- Arboricultural heritage should be conserved and where possible restored with the original tree species however a greater range of plant and tree species can be implemented to increase site biodiversity and species resilience to pests and diseases, along with a selected mix of broad-leaved tree species to reflect with the landscape's historic character.
- A real opportunity to demonstrate how a historical site and features can be incorporated and respected within a newly designed contemporary landscape with a varied range of community uses and facilities.

Landscape Designations

The site is surrounded by a number of designated landscapes of which the site is to have links and connections to including continuing existing and proposed cycle routes, pathway links, connections to trails and green open spaces, green corridors and networks.

The site provides a key green space that connects these designations.

Constraints

- The site needs to consider the surrounding designations, ensuring a good connection to trails and green open spaces and incorporate strategic cycle routes.

Opportunities

- The requirement for the connections to surrounding designations offers opportunity to strengthen green corridors, links and routes as part of a co-ordinated and connected green space strategy.
- These surrounding designations ensure these spaces are protected from development and the site can provide an essential link between them.
- Wayfinding and legibility can guide and inform, creating links to adjacent green open spaces, cycle routes and trails.

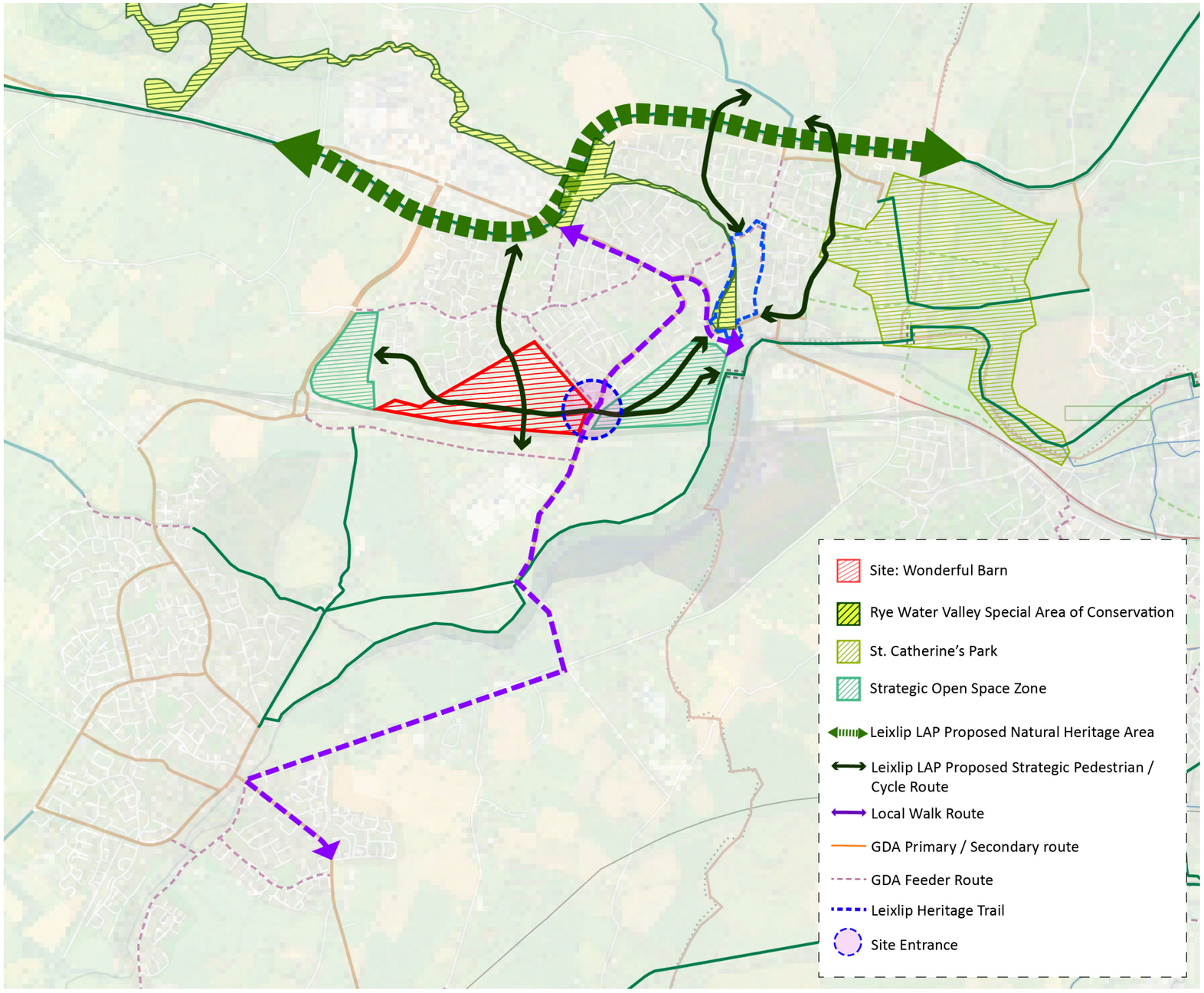


Figure 13: Landscape designations plan

Public Open Space and Amenities

The site is well situated to new residential development, and within a range of green open spaces, parks and green networks. It provides a useful green link to Castletown House, the Leixlip Heritage Trail and St. Catherine's Park to the north east of the site.

Constraints

- The site is constrained by new development encompassing the northern periphery and the M4 motorway to the south.

Opportunities

- There is opportunity to significantly enhance the green corridor / tree belt along the M4 boundary to aid screening motorway traffic, rattenuate noise and reduce pollution.
- Opportunity to create a linear park, which provides a range of community uses and amenities including play areas, urban farm, cafe and seating within a parkland setting as part of the green corridor.
- Create greater spatial links and routes to the surrounding green open spaces and networks.
- Propose a greater biodiverse landscape to provide wildlife habitat, strengthen tree groups and belts, a diverse landscape type throughout the park.
- Enhance the attractive setting for the Wonderful Barn, main house and potential cafe.
- Provide legibility and interpretation that guides, directs, and informs the new landscape and history of the site.

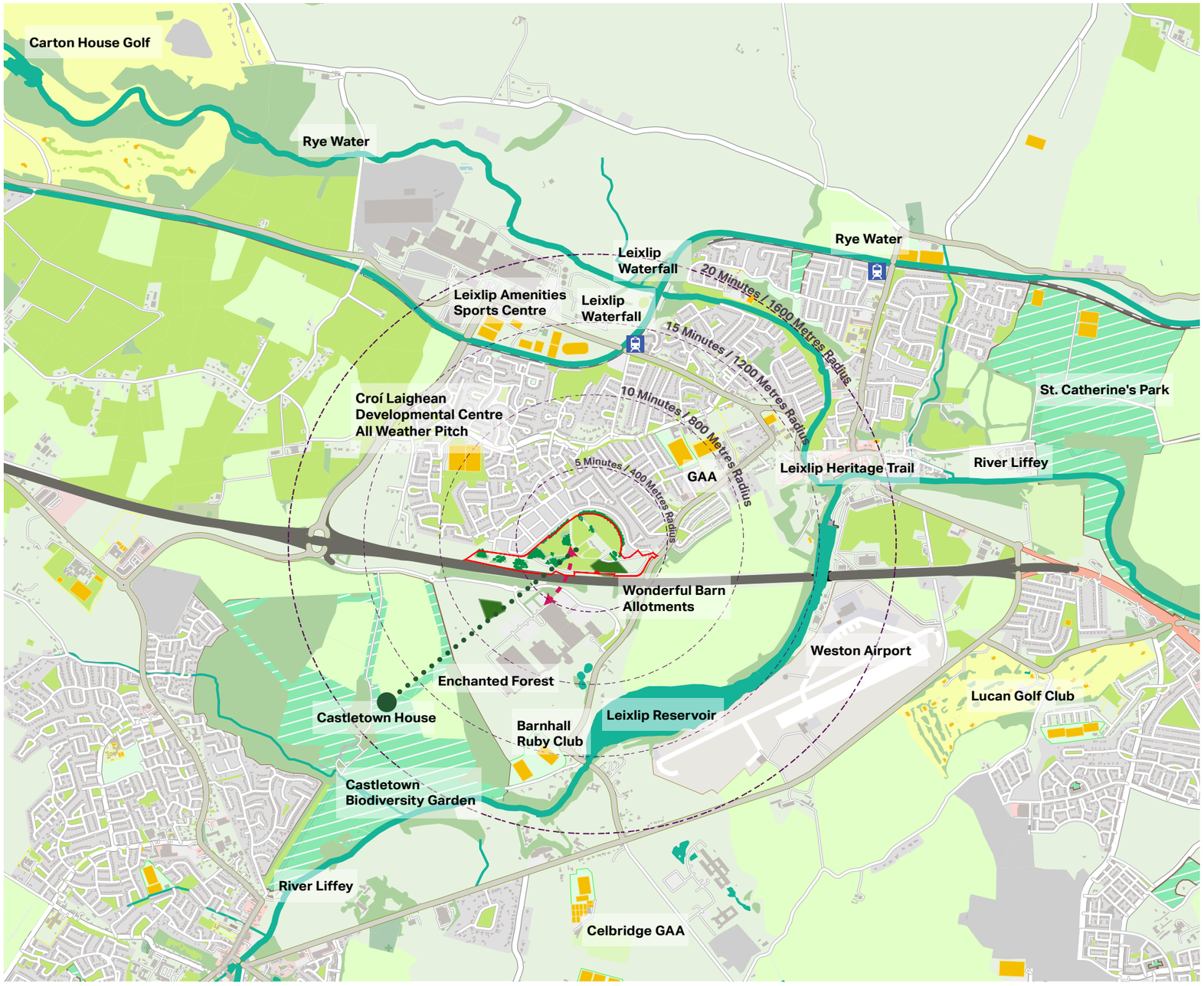


Figure 14: Public open space analysis plan

Existing Tree Conditions

The site is well stocked with semi-mature trees of native species. Their uses range from pathway avenue type planting, periphery planting, groups of formal planted trees and woodland blocks. Views into the park are sporadic where occasional breaks in tree groups around the periphery allow.

Constraints

- Historical alignments and species selection to be considered.
- Trees define spaces, historical field edges, pathway avenues, periphery planting and woodland belts. In retaining the majority of trees, these mixed age trees retain the alignments and groupings that will need to be considered and avoid conflict with a new landscape design.
- Any potential desired views may be hampered by existing trees.

Opportunities

- The existing trees provide a valuable site asset and an established basis for additional planting opportunities, such as strengthening periphery planting and woodland belts and blocks, individual specimen arboretum style planting and urban orchard trees, which may have some spacial connection with a potential urban farm and allotment spaces.
- In particular there is opportunity to significantly enhance the green corridor / tree belt along the M4 boundary to aid screening motorway traffic,attenuate noise and reduce pollution.
- Additional woodland belts and groups can provide can emphasise key views, new views and create a continuous green infrastructure as a linear park.
- The introduction of a wider range of tree species, would provide a more diverse and resilient tree strategy.

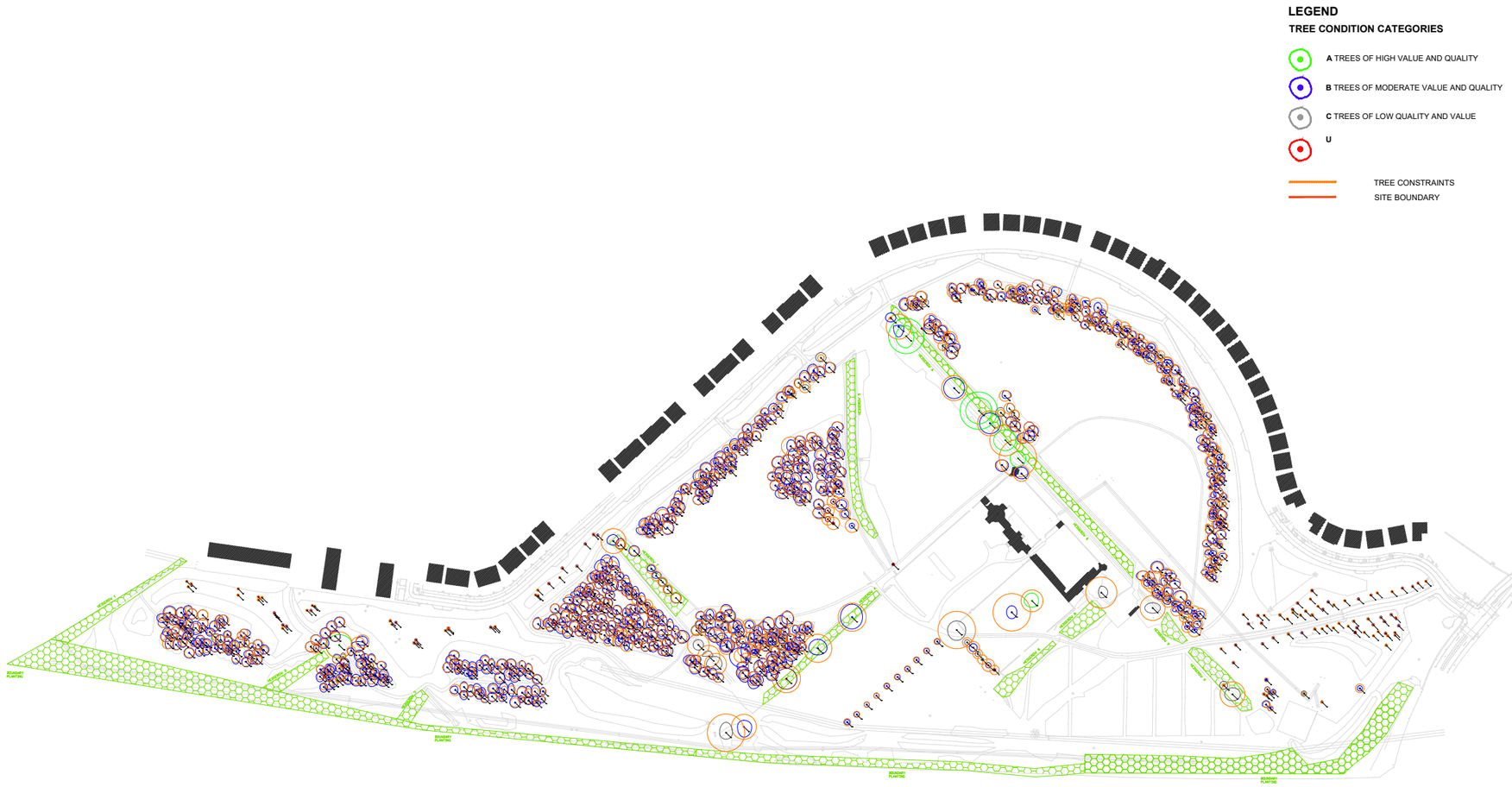


Figure 15: Existing trees plan

NOT TO SCALE

Figure 16: View from the Wonderful Barn looking southward.

Figure 17: View of the historic walled garden and community allotments looking south-eastward.

Existing Circulation

The site is well served by surrounding roads and pathway networks, in particular the adjacent M4, the R404 with Barnhall Meadows to the northern periphery of new development. Barnhall Meadows Boulevard runs through the southern part of the site causing a separation of green space to the south west.

A new proposed link bridge crossing the M4 will connect the site to the south.

Constraints

- The site is well served for vehicles, pedestrians and cyclists. t Barnhall Meadows Boulevard is a temporary haul road for the new development and separates green spaces to the south west.
- There is a proposed bridge link over the M4 to consider.
- A vehicle route from the main access intercepts through the walled garden, disrupting the historical value of the gardens, breaking the historic wall and original use/definition as a walled garden space.

Opportunities

- Access into the site is well provided, and the networks of paths within the site offer a number of routes. There is opportunity to improve the main access from the R404 and car park opportunities within the site.
- Existing pathways define movement patterns over time, however, some could be removed and replaced in line with a new landscape scheme. Those with strong axis should be retained, while others could influence realignments, removals and new pathways.
- New routes can be defined in the newly designed landscape, including shared cycle/pedestrian paths, to external links and spaces. The vehicular route intercepting through the walled garden should be removed, with the walled garden reinstated. Options are to be explored that reduce vehicle movement through the site whilst serving the main house and barn and potential cafe.
- Potential for acoustic/noise barrier fence along M4 boundary.

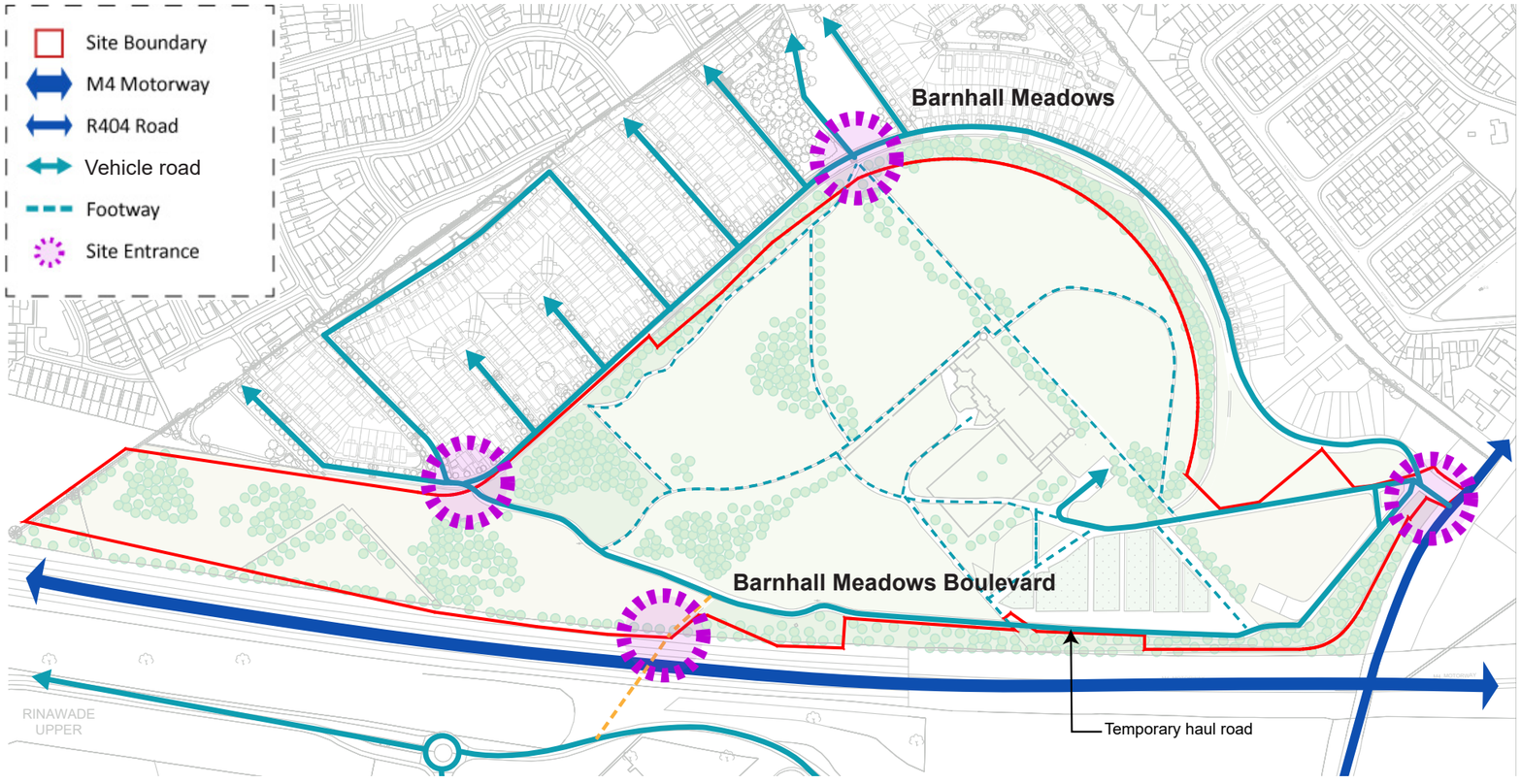


Figure 18: Existing circulation diagram

Figure 19: Entrance from the western corner of the site

Figure 20: Main entrance into the site.

Topography

The site is generally gently sloped, with the high site levels to the north dropping by approximately 6m to the south. Although generally the site is gently undulating, there are swales to the north-west boundary and to the south as part of the site SuDS, and also a mounded landform to the south-west.

Constraints

- Historical use and new uses restrict significant level changes.

Opportunities

- The site is highly accessible without the need for retaining structures for new uses and offers good accessibility.
- Potential for sculptural landforms.

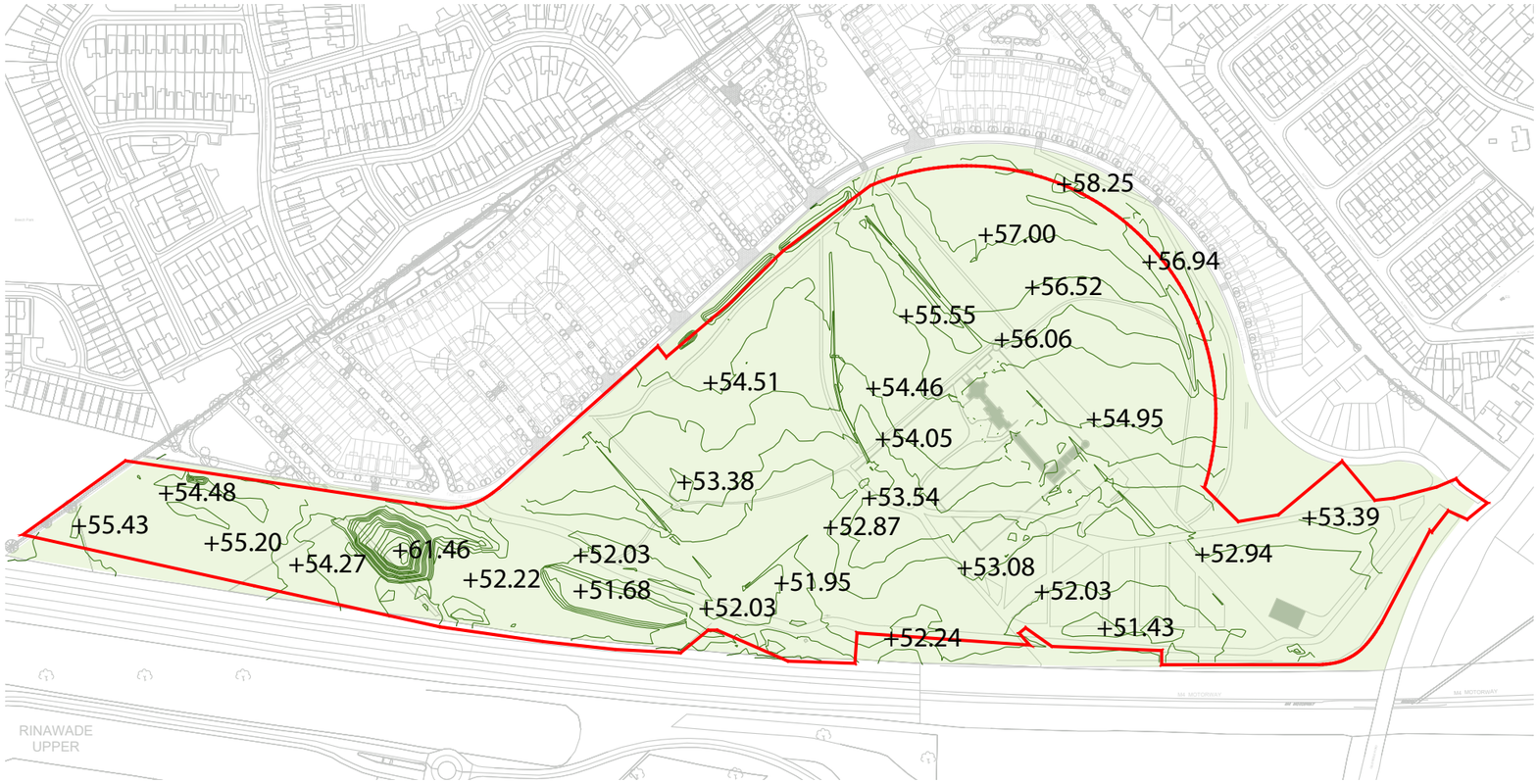


Figure 21: Existing topography plan

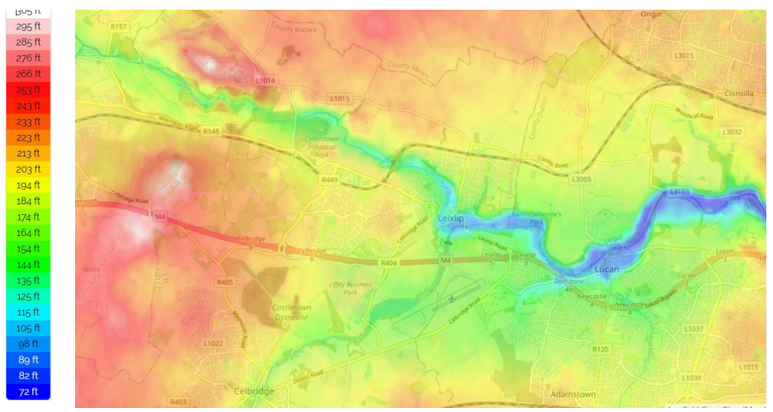


Figure 22: Existing topography plan- Leixlip area

Figure 23: Existing topography plan- Wonderful Barn Site

Key Views

The site is generally gently sloped, with the high site levels to the north dropping by approximately 6m to the south. This enables good key views from the house and barn to the south, and a view axis north-west.

The site has tree groups which hamper immediate views in and out of site, particularly in the north-west leading south, along the southern boundary to the M4 and sporadic tree planting to the east and main access point. These tree groups also present some seclusion within the site from the new development.

Constraints

- Key views should be retained.
- Existing tree groups limit views to the immediate surroundings.

Opportunities

- Trees can be thinned, crown-lifted if deemed necessary to create views.
- Tree groups and avenues can be strengthened to emphasise and/or create new views.
- Reinforce historic view corridor to Castletown House to and from the Wonderful Barn.

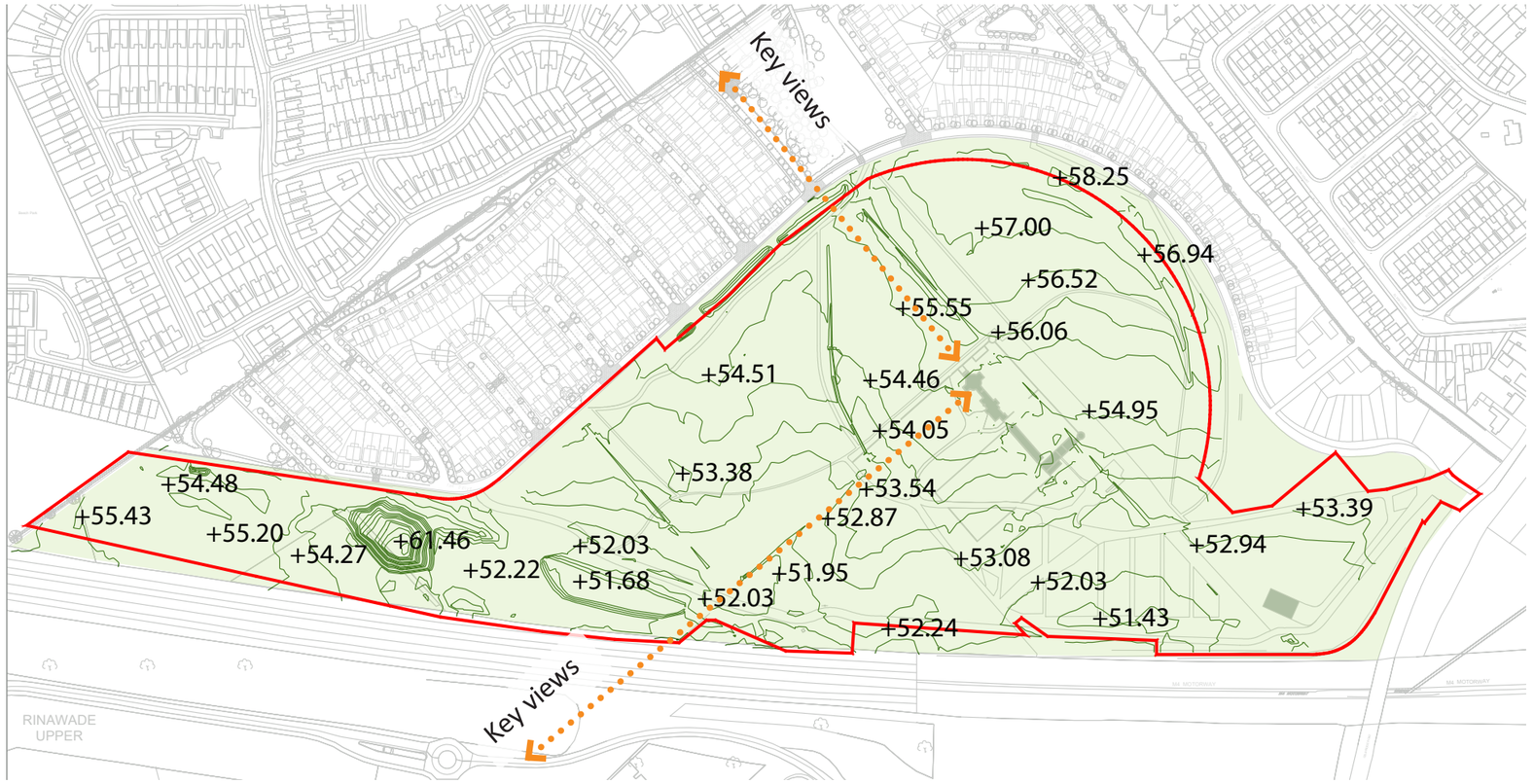


Figure 24: Views plan

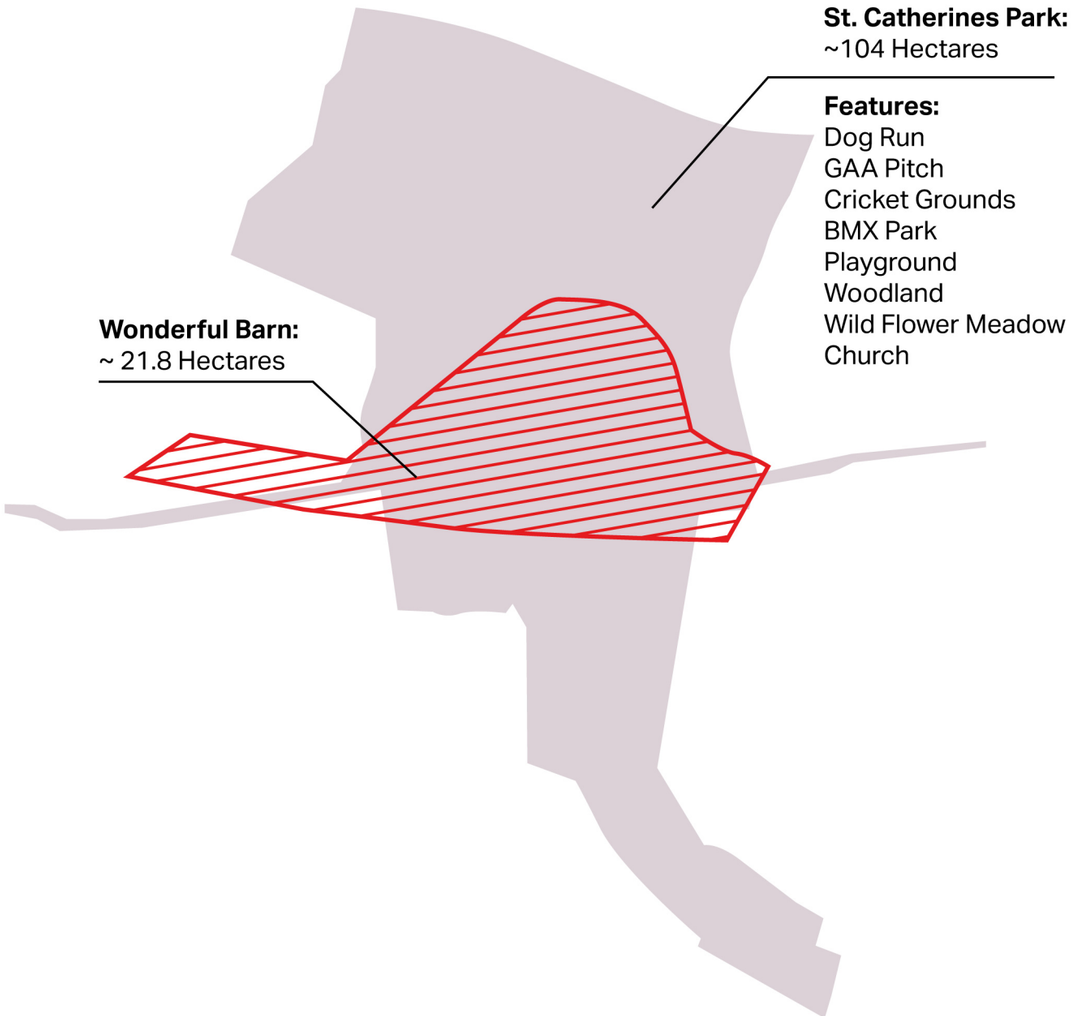
Figure 25: View from the new road leading up to the Wonderful Barn

Figure 26: View from the Wonderful Barn looking southward.

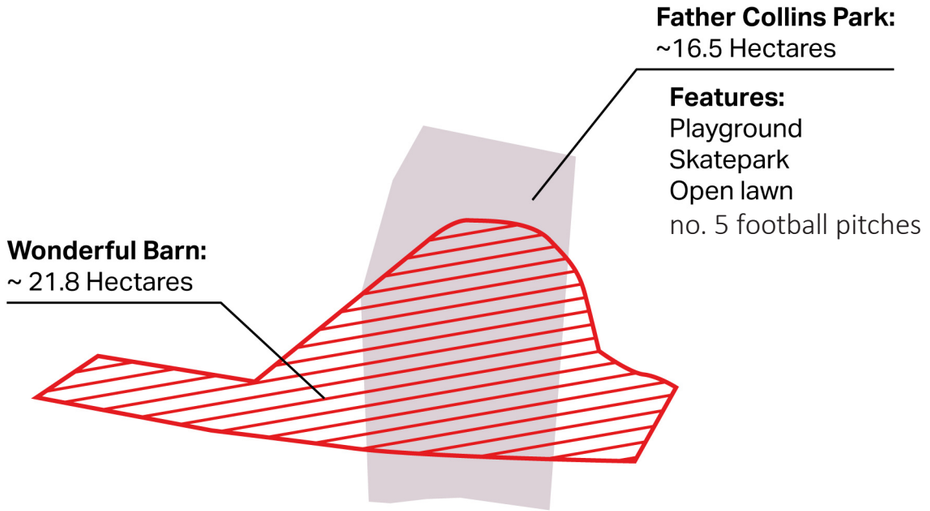
Figure 27: View of the walled courtyards as seen from the Wonderful Barn.

Scale Comparison

St. Catherine's Park, Kildare, Ireland



Father Collins Park, Dublin, Ireland



Primary Movement Options

The site has a good network of vehicle routes and pathways. Some of these reflect the historical axis and garden boundaries etc. The Barnhall Meadows Boulevard from the main access runs along the southern periphery, primarily used as works access to the new development site. Options for this could be to partially retain the access route for vehicle use to the main building/barn, and potential to partially convert into a shared cycle route / pedestrian route.

A new proposed link bridge crossing the M4 will connect the site to the south.

Options include limiting / reducing / removing the need for vehicle access within the site.

The pathways and vehicular access, cycle routes will be further developed with the emerging landscape design and placement of spacial uses.

Park Access points

Main vehicle access

Secondary vehicle access

Shared pedestrian/cycle route

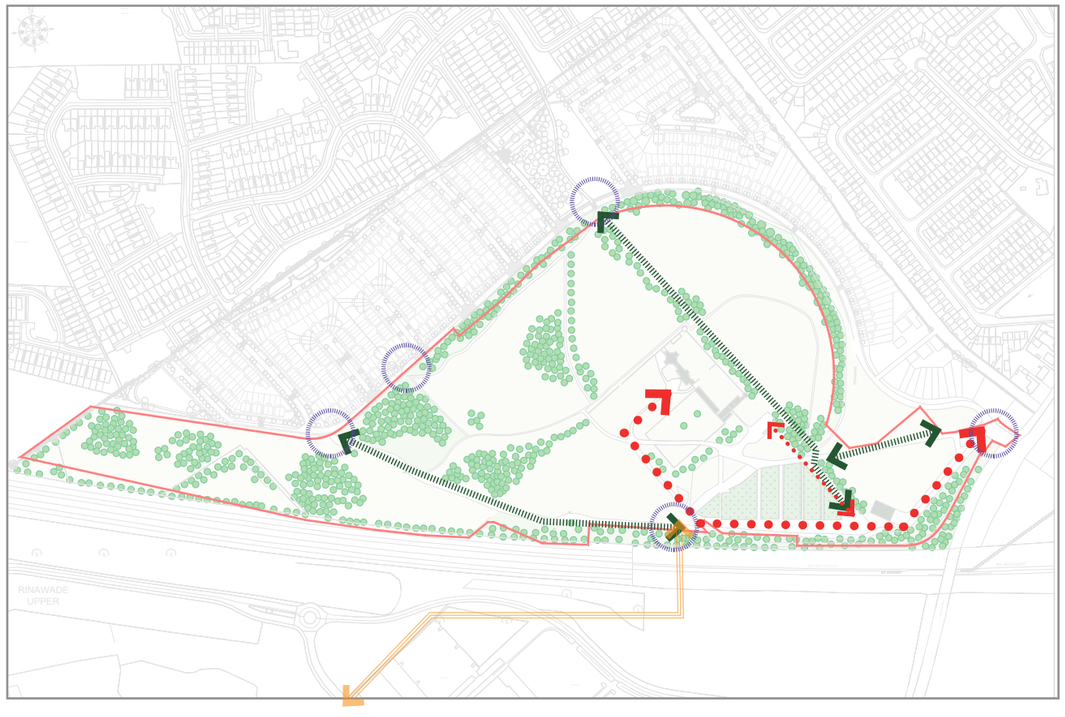
Proposed bridge link

Option 1

- Retain existing main vehicle access into site, car parking and route to the main house.
- Barnhall Meadows Boulevard becomes a shared pedestrian/ cycle route.
- Cycle routes and pathways influenced from existing.

Option 2

- Vehicle access is restricted to the periphery of the site whilst still accessing the main building.
- The existing vehicle access becomes the main pathway and cycle route.
- Barnhall Meadows Boulevard in part becomes a shared pedestrian/cycle route.
- Cycle routes and pathways influenced from existing.



Primary Movement Options

Park Access points

Main vehicle access

Secondary vehicle access

Shared pedestrian/cycle route

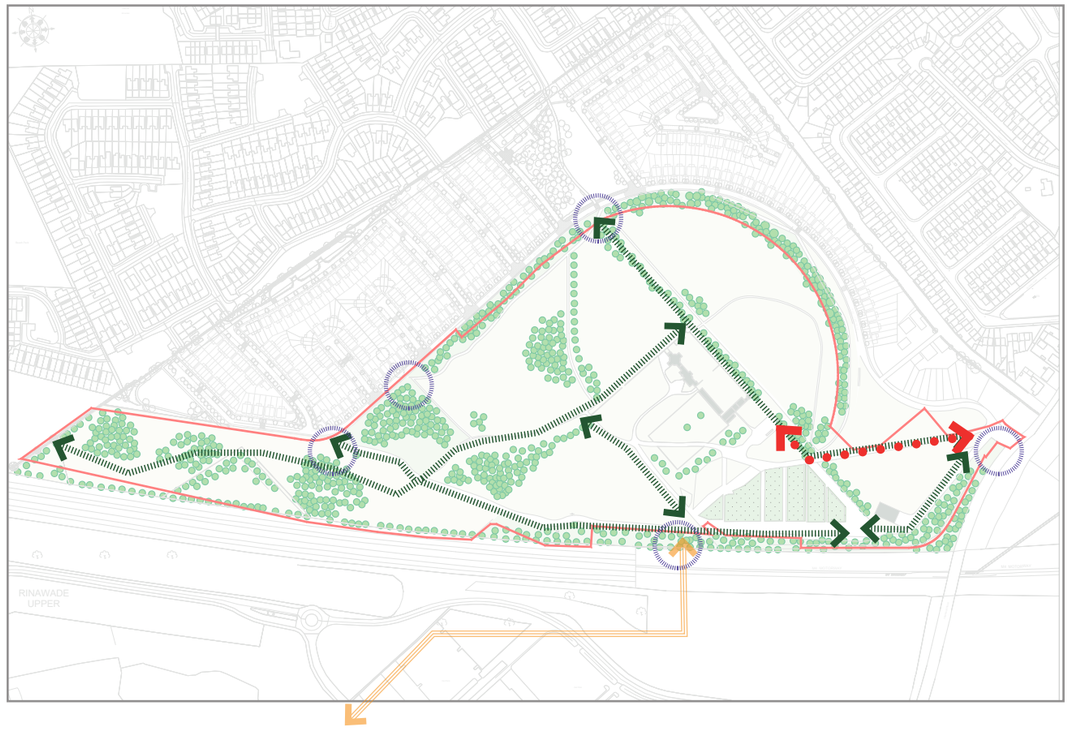
Proposed bridge link

Option 3

- Vehicle access is restricted to the periphery of the site whilst still accessing the proposed cafe building with pathway/ cycleway access to the main building and barn. This could also act as temporary vehicle access to the main building (functions/maintenance etc).
- The existing vehicle access becomes the main pathway and cycle route.
- Cycle routes and pathways influenced from existing.
- Barnhall Meadows Boulevard becomes mostly a shared pedestrian/cycle route with a through route to the adjacent green space.

Option 4

- Retain existing main vehicle access into site, car parking and route to the proposed cafe as shared surface.
- Cycle routes and pathways influenced from existing.
- Barnhall Meadows Boulevard becomes a shared pedestrian/ cycle route with a through route to the adjacent green space.



Design Strategy

03

Concept Development

Historic context

Food production
Farm landscape
Courtyard garden
Working yards
Walled garden
Connection to Castletown House

Site potential

Biodiversity park:

- Green infrastructure
- Blue infrastructure/SuDS
- Meadow landscape
- Woodland belts
- Ecology corridors
- Play: for all age ranges
- Trim trails
- Walking / cycling

Urban farm:

- Community garden
- Community allotments
- Urban orchards
- Cafe / tea room

Educational use:

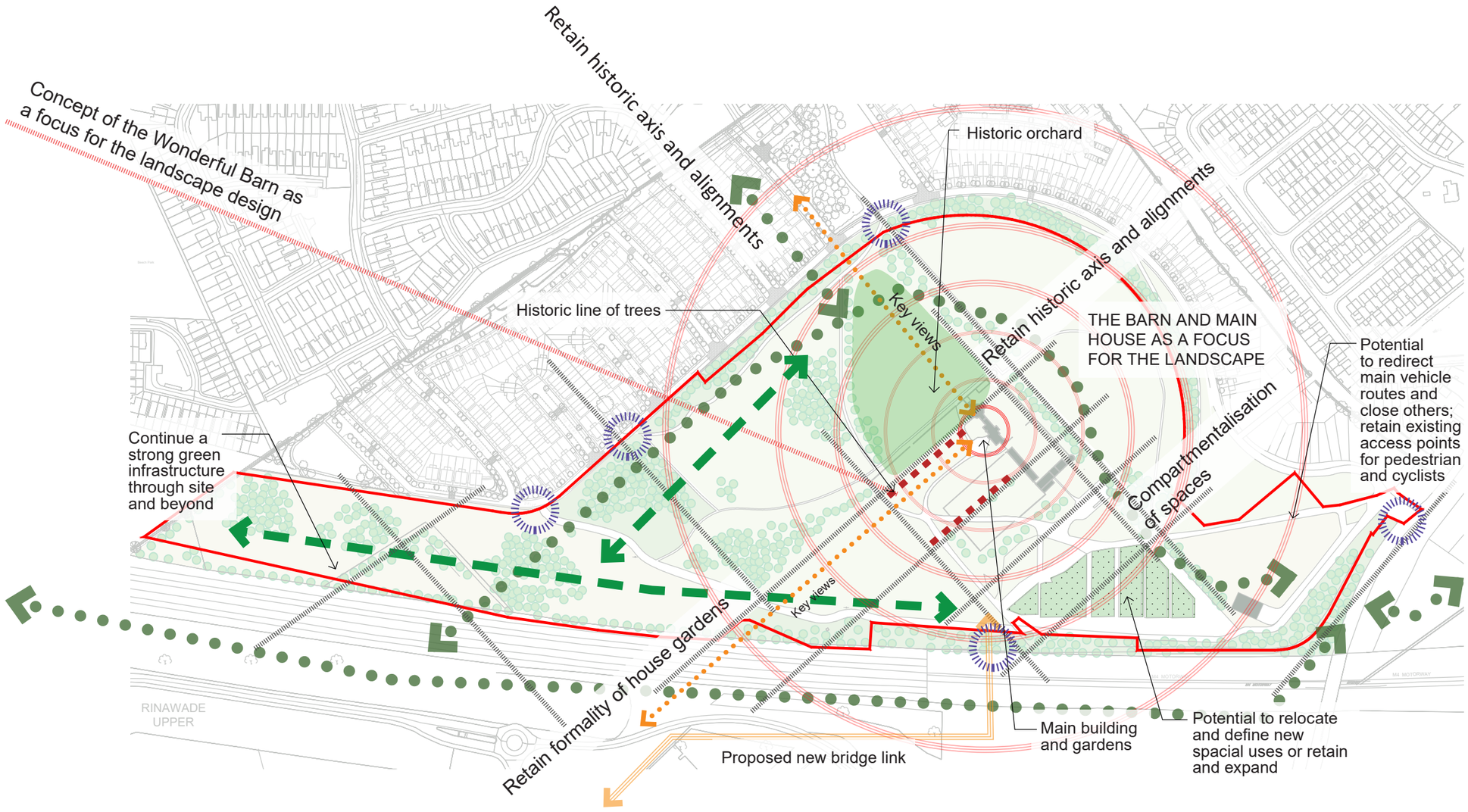
- Growing classes
- Cooking school - cafe
- Bee keeping
- Growing school - horticulture

Interpretation:

- Historic farm landscape
- Walled garden
- Stables/courtyards
- Connections to surrounding green spaces

Site Grain

Field Pattern -Modern Interpretation
Orchard
Walled Garden
Entrance corridor
New arrival experience
Parking - cars, coaches, motorbikes, bicycles



The conceptual development progressed after looking at the existing conditions and context, different land-use typologies, activities on-site, landscape approaches and landscape features were brainstormed to form the site. These formed the basis for the spatial layout in the design options.

To create the structure of the site we drew from the historic axis on-site, utilising the existing views and tree line to orient the site and ground the Wonderful Barn as the focus whilst taking into account historic landscape features.

Key concepts:

1. The Barn and main house as a focus for the new landscape design.
2. Retain and enhance key views and consider the historical uses of the site.
3. Retain and strengthen existing green and blue infrastructure.
4. Opportunities for creation of new spacial arrangement for new uses.
5. Minimising vehicle movement though the park.
6. Opportunities for new pathway routes, cycle routes (and shared routes) through site to external links and trails.

Framework Plan

Landscape Strategy

The landscape strategy was formed as a result of the analysis outlined previously.

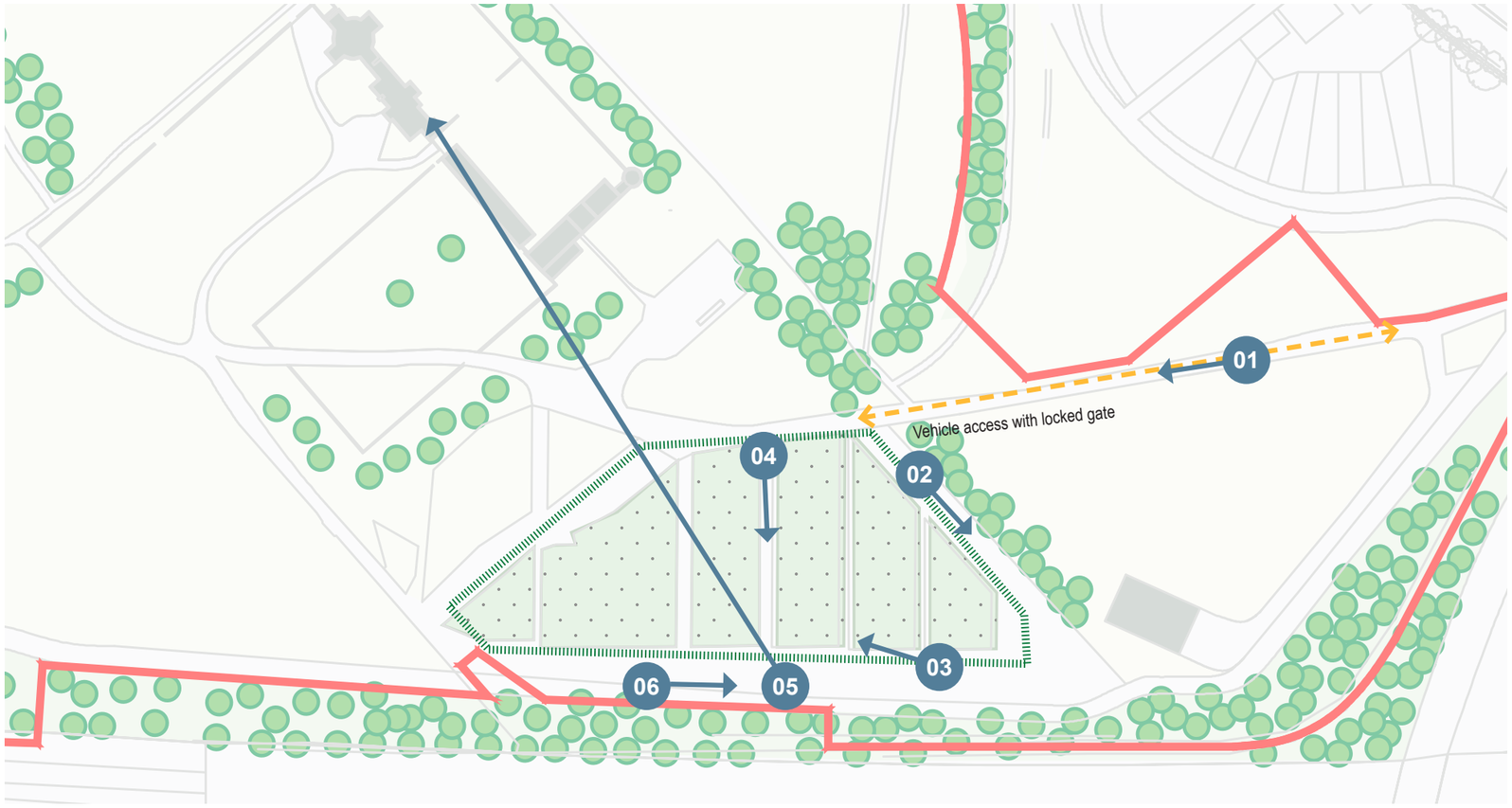
Allotments - Existing Condition

Existing Allotments

- The existing allotment space comprises approximately 62 allotments of varying sizes.
- Not all are fully utilised and edged by post and wire fencing - not secure.
- Additional features on-site include water butts, polytunnels and water posts.
- Vehicle access is restricted - locked gated access road with parking external to the allotments.
- Pedestrian access to individual plots is via grass paths.
- Varying sizes and condition.
- Good views to the Wonderful Barn.

Allotments Analysis

- Location of allotment areas - suitability, access, capacity for future, adequate facilities.
- Needs to be adaptable to future demands - varying plot sizes, expansion / increase of area.
- Needs to provide adequate facilities.
- Needs good access - both vehicle and pedestrian, with adequate accessible parking and pathways.
- Site security - fencing types to perimeter of area and individual plots.



View west on approach road

View south-east along eastern boundary

Plots with post and stock proof fence

Plots vary in size, usage and condition

The Wonderful Barn views from allotments

Grass path along mesh fence to the haul road on southern boundary

Allotments - Precedent

R-Urban Community Farm in Colombes, France

This project is a bottom-up collaborative scheme that explores the possibilities of enhancing the capacity of urban resilience (self-sufficiency, production and recycling to local and regional levels) by introducing a network of locally run facilities to create complementaries between key fields of activity (urban agriculture, culture, economy, and habitat).

The strategy initiates a locally closed ecological cycles that will support the emergence of alternative models of living, producing and consuming between the urban and the rural.

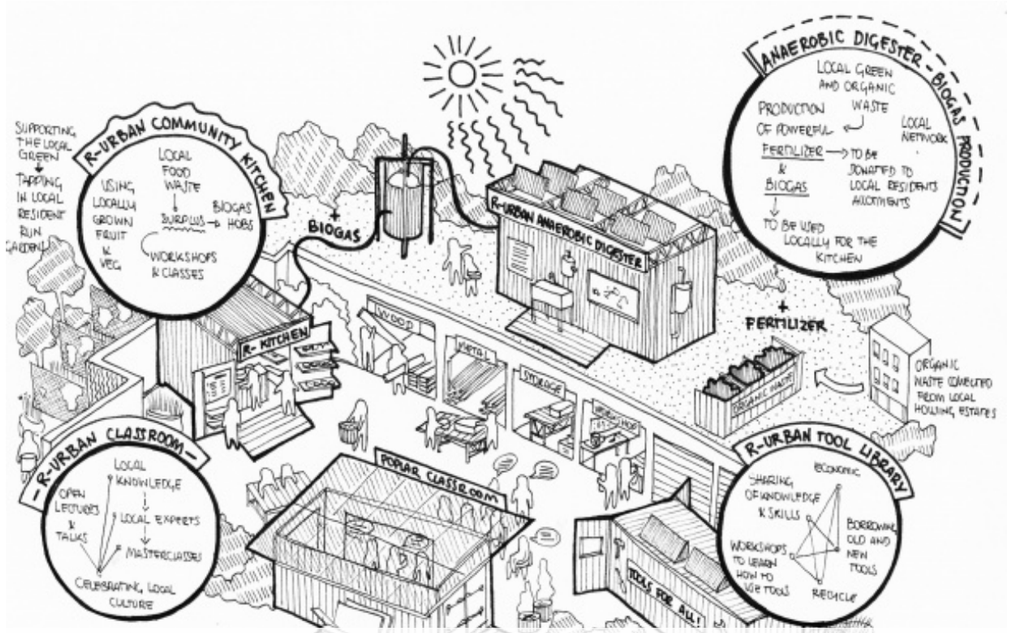
It draws on the active involvement of citizen in initiating collaborative practices, sharing knowledge, and creating solidarity networks, closing cycles between production and consumption, operating changes in lifestyles, acting ecologically at the level of everyday life.

Recycling local wastes into materials for the construction of community farm

Collaborative scheme encourages active involvement of local residents.

Workshop helps to connect the spaces in which individual and collective practices take place.

R-Urban, a self-built micro-experimental farm, community gardens, educational and cultural spaces



Concept sketch illustrates the operation process of the R-Urban through a locally closed ecological network and a local production-distribution cycle.

Allotments - Boundary Treatment

Boundary Treatment

As well as the most appropriate location for allotments in terms of user access, circulation, access to light and leaf litter considerations, the boundary treatment is also an imperative consideration. The boundary treatment is to consider security, access, if natural visual surveillance is required, and the look and aesthetic of the boundary, whether it is attractive and is in keeping with the site – it is a balance of all of the above.

Options include:

- Boundary fence
- Hedge planting
- Traditional wattle fence

A boundary fence, this could be a stand alone fence, or screened with climbing plants or hedge planting.

Hedge planting – either native hedge or ornamental clipped hedge could provide an attractive boundary treatment. Pre-grown hedges of a range of species can be installed, although are costly.

Traditional wattle fence – attractive but not secure, and timely/costly in construction. This could be used internally instead of wire mesh fencing as needed.

Features

Sheds, communal seating spaces that are accessible and using local resources for compost, communal water butts to be utilised as the primary water source on-site. Stemming from the biodiversity crisis, incorporate a variety of plants and flowers in allotments that will encourage pollinators and other wildlife to use the green space and support ecosystem services. Features of the allotments in the site development would include:

- Varying allotments plots
- Water butts
- Accessible seating
- Variety of plants
- Insect hotels

Allotment plots for a variety of people.

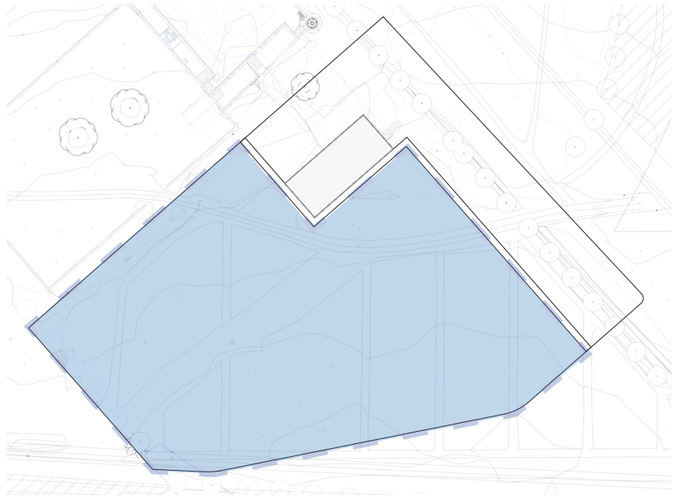
Water butts for communal use.

Accessible seating spaces for community use.

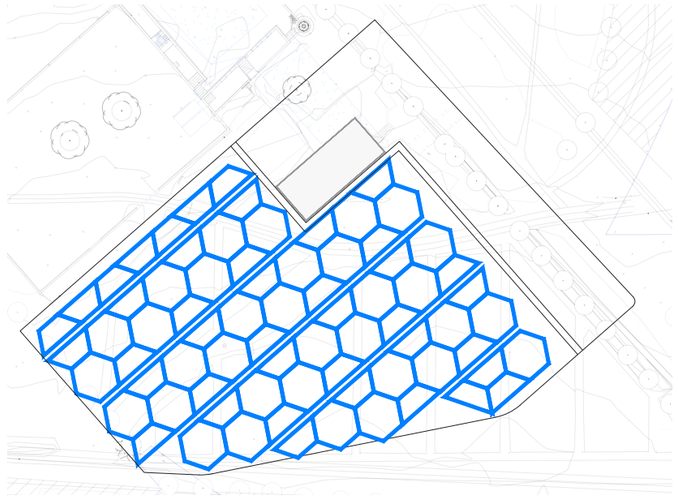
Variety of plants and flowers to increase biodiversity.

Insect hotels to encourage pollinators.

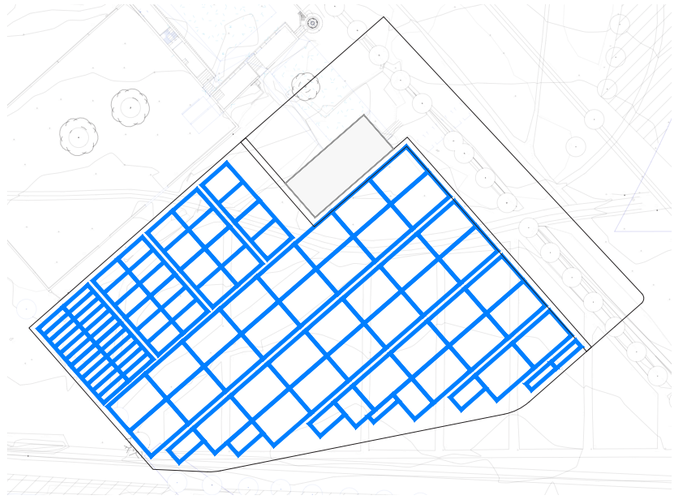
Allotments - Spacial Analysis



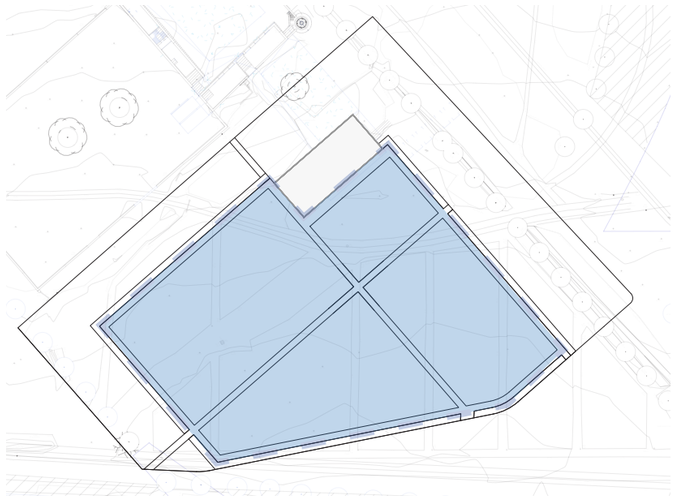
Option 1: Full Capacity
Retains the existing location of the allotments, filling in the full extents of the space with as many plots as possible.
Total Area: 10,400m2



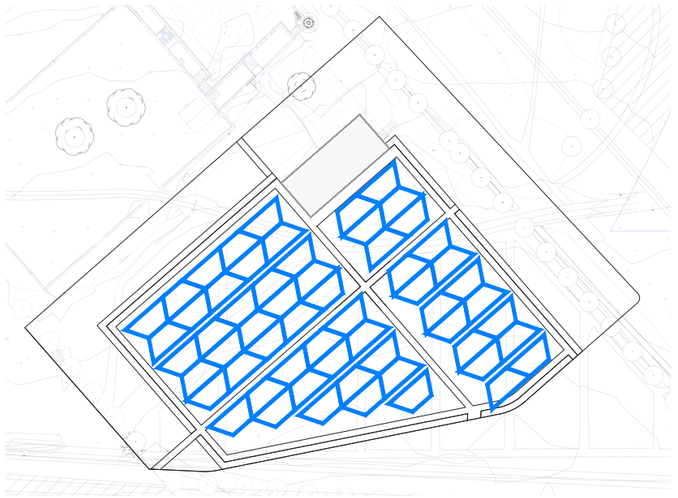
Option 1: Hexagonal Plots
Interlocking hexagonal plots with 2m footpath cut throughs.
150m2 plots - 33
75m2 plots - 41
74 Total



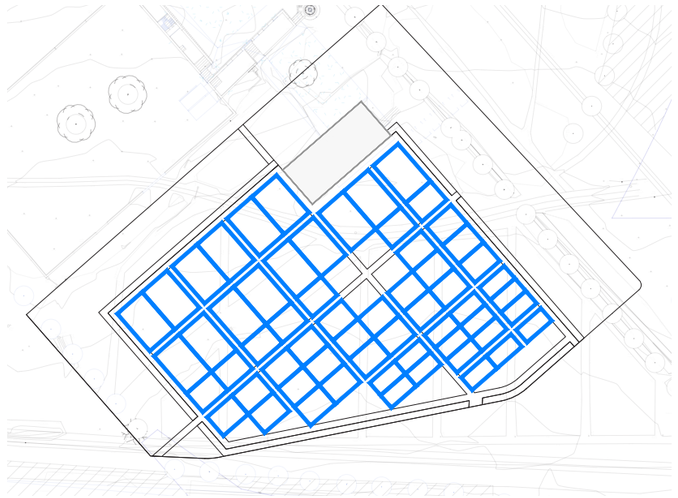
Option 1: Rectangular Plots
Formalised rectangular plots with 2m footpaths.
150m2 plots - 38
75m2 plots - 11
50m2 plots - 16
25m2 plots - 27
92 total



Option 2: Consolidated Space
This option explores consolidating the allotment space to achieve the minimum plot requirement of 60.
Total Area: 7830m2

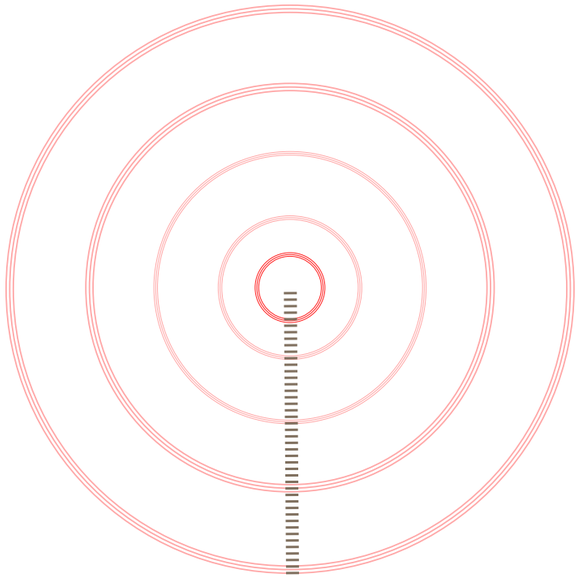


Option 2: Hexagonal Plots
Half-size hexagonal plots with 2m footpaths.
75m2 plots - 60

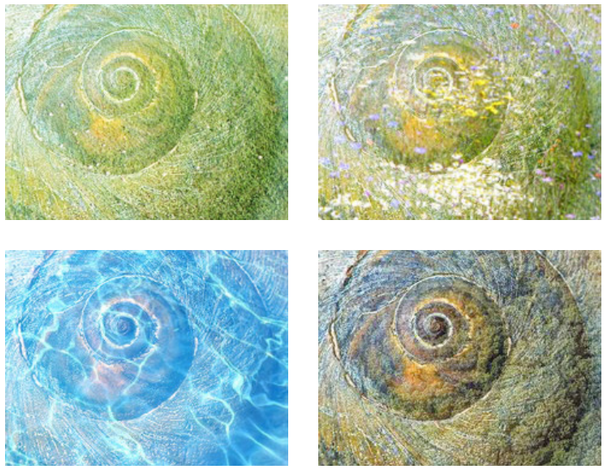


Option 2: Rectangular Plots
Consolidated rectangular plots with 2m footpaths.
150m2 plots - 15
75m2 plots - 29
50m2 plots - 16
60 total

Iconography / Focal Point / Interpretation



The Wonderful Barn as a focus



The Wonderful Barn inspired landscape elements

Local materials and stones to create the garden's architectural features

Structural planting styles to set and preserve the identity of space

Historic structure and its former use are preserved

Precedent - Estate garden types: Historical and Contemporary

Indicative precedent images of estate gardens.

While the site is predominantly designed towards a parkland typology, the landscape directly to the south -west of the Wonderful Barn has been designed as estate garden to be more sympathetic towards the historic character of the existing buildings.

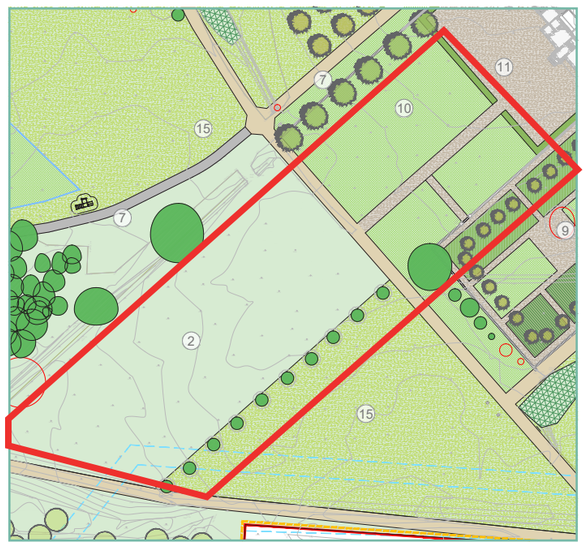
Sculptural land forms

Killarney House and Gardens

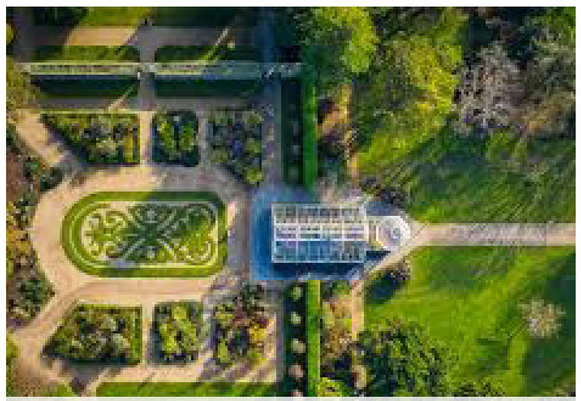
Formal walled garden

Water feature

Key Plan



Estate landscape



Malahide House and Gardens

Precedent - Courtyards

Indicative precedent images for courtyard areas.

The courtyard will have a formal plaza feel through its materiality and furniture. Historic cobbles and feature paving flags combines contemporary with historic.

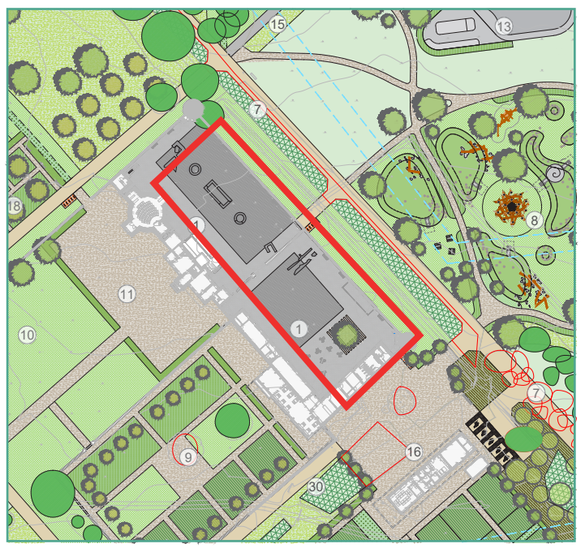
Venue for market and commercial activities

Open lawn for multifunctional use

Flexible activity space

Interface between built environment

Key Plan



Precedent - Woodland Edge & Natural Play

Indicative precedent images for woodland areas and natural play

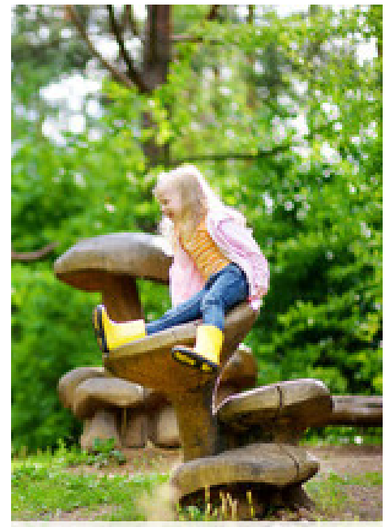
For play within the site, emphasis has been placed on natural/incidental play - boulders, logs, stumps etc. The intent is to match the parkland character of the site.

Natural Playground

Natural features encouraging incidental play

Stepping stumps along native woodland edge

Playground boulders

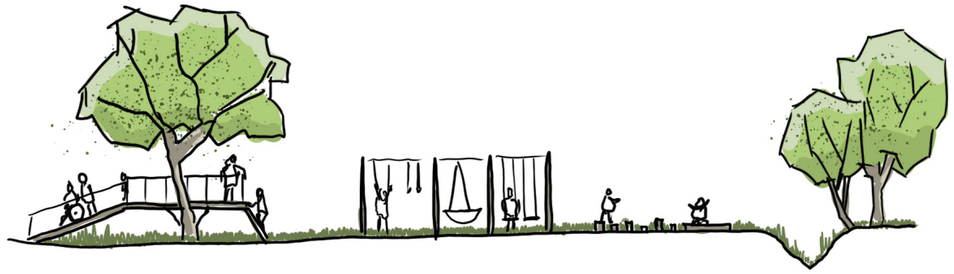


Woodland belt play structures

Key Plan

Precedent - Play Typologies

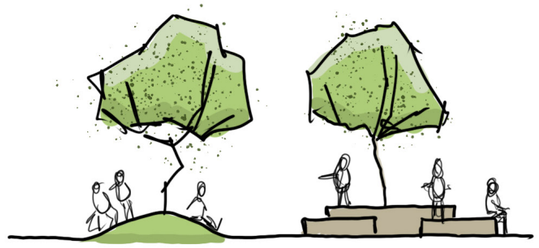
Risky



Accessible

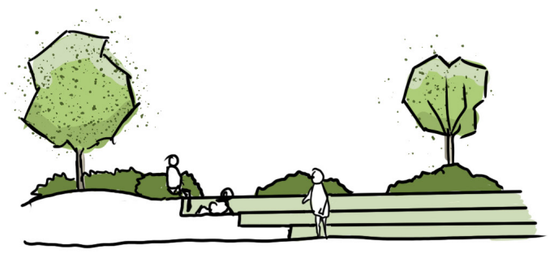
Woodland

Imaginative



Nature

Teen Spaces

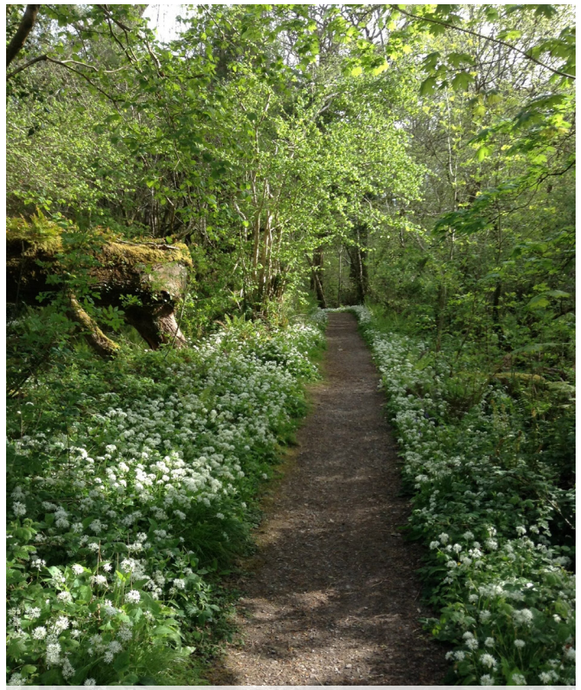


Precedent - Parkland Trails

Indicative precedent images for southern boundary.

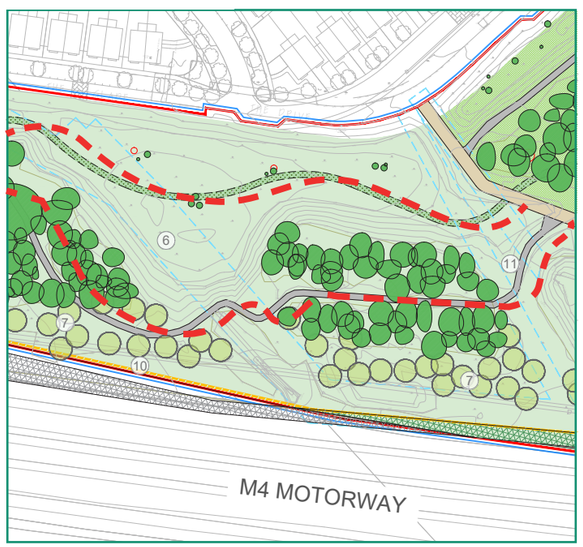
This space is defined by meandering pathways through mature trees, woodand understory and meadow planting within a mounded landscape.

Woodland walk



Woodland trail

Key Plan



Activities trail

Informal play and learning opportunities

Precedent - Landscape Features

Indicative precedent images for parkland features.

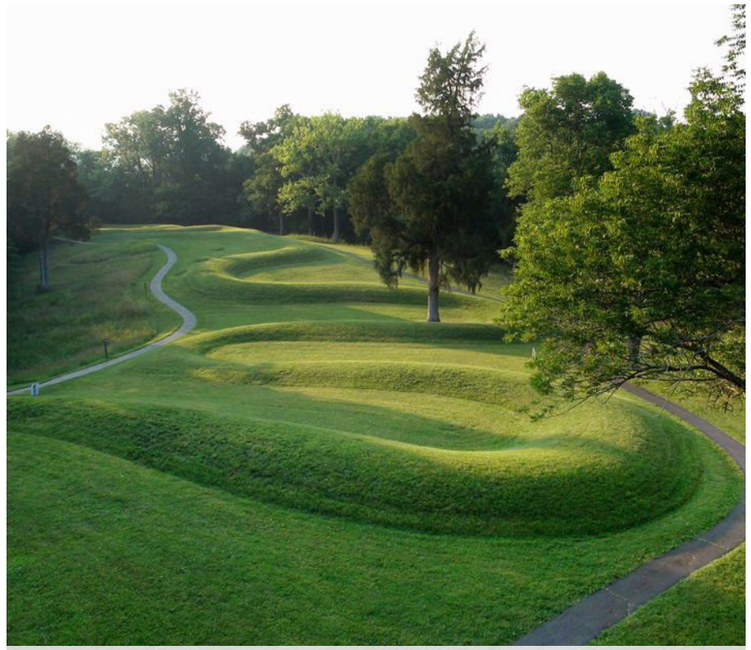
Mounded landscape features have been incoporated within the south-western parkland trails and the north-eastern playground.

Spiral mounds echoing Wonderful Barn iconography

The topographic labyrinth

Key Plan

Informal lawn and meadow for passive recreation and biodiversity



Sculptural mounds and landform

Precedent - Walled Garden

Indicative precedent images for the walled garden.

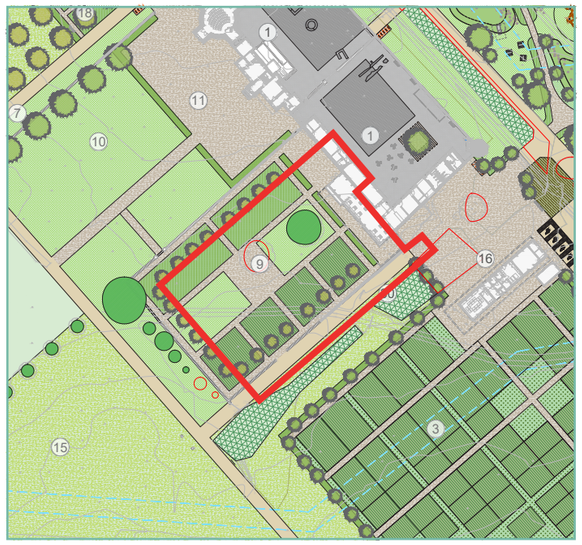
The design for the walled garden calls back to the layout and functionality of the historic vegetable patches present in previous iterations of the space.

Permeability through garden space

Kitchen garden orchard

Espalier fruit trees within walled garden

Key Plan



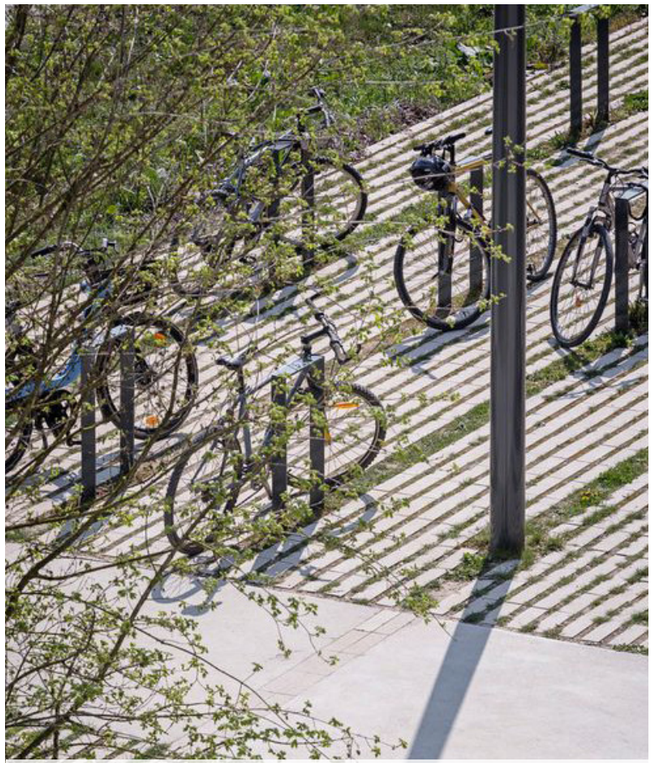
Produce can be managed by cafe

Planting strategy- less formal, more produce

Precedent - Car Park

Indicative precedent images for car park.

The key driver for the car parking on site is permeability - permeable paving (hydropave), SuDS elements such as rain gardens and swales.



Cycle infrastructure

Sustainable permeable paving

Tree screening

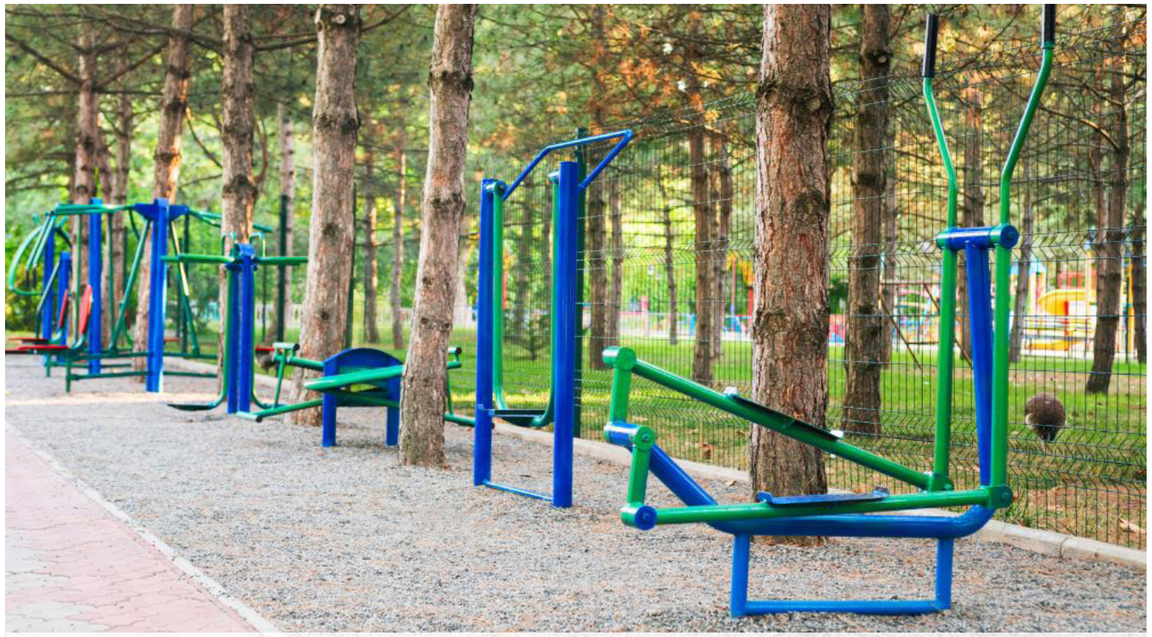
Key Plan

SuDS

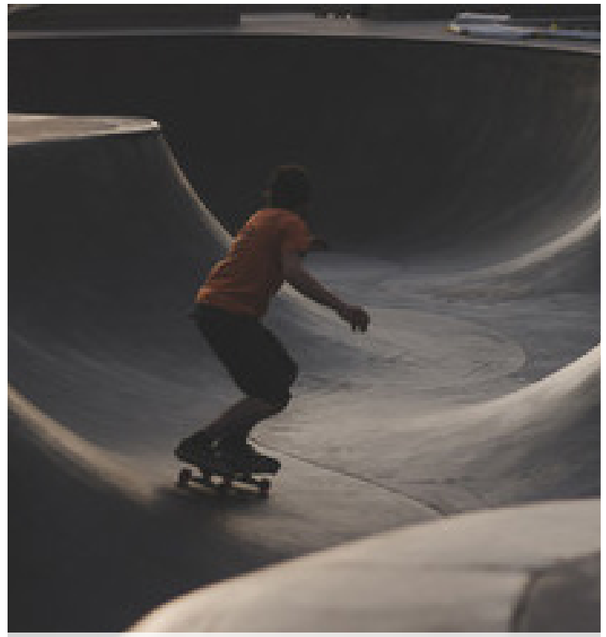
Precedent - Sports Amenities

Indicative precedent images for sports amenities.

Formal sports facilities include MUGA, Skatepark and outdoor fitness equipment trail.



Outdoor gym / Fitness trail



Skate park

Key Plan

Informal kickabout

Mini-MUGA

Site Masterplan

04

General Arrangement

1. AMENITY COURTYARD
2. OPEN PARKLAND
3. ALLOTMENTS
4. PARKS DEPT
5. EXISTING SERVICE DEPOT
6. CAR PARK
7. PEDESTRIAN AND CYCLIST ROUTE
8. NATURAL PLAYGROUND
9. WALLED GARDEN
10. MANICURED LAWN
11. ARRIVAL SPACE
12. SHARED ACCESS ROUTE
13. SKATE PARK
14. MUGA
15. INFORMAL KICKABOUT AREA
16. MEADOW AREA
17. SHARED SURFACE PLAZA
18. DOG RUN
19. FRUIT TREE BORDER PLANTING
20. TREE PLANTING REFERRING TO HISTORIC LAYOUT
21. EXISTING MOUNDED LANDSCAPE
22. ADDITIONAL BUFFER PLANTING
23. EXISTING ATTENUATION AREA
24. M4 PEDESTRIAN BRIDGE CONNECTION
25. PRIMARY SITE ENTRANCE
26. MEMORIAL GARDEN
27. EXISTING FOOTPATH RETAINED

General Arrangement

General Arrangement

1. OPEN PARKLAND
2. ALLOTMENTS
3. PARKS DEPARTMENT YARD
4. EXISTING SERVICE DEPOT
5. CAR PARK
6. SHARED ACCESS ROUTE
7. NATURAL PLAYGROUND
8. WALLED GARDEN
9. MANICURED LAWN
10. ARRIVAL SPACE
11. EXTENDED WOODLAND BUFFER
12. SKATE PARK
13. MUGA
14. MEADOW AREA
15. SHARED SURFACE PLAZA
16. DOG RUN
17. FRUIT TREE BORDER PLANTING
18. TREE PLANTING REFERRING TO HISTORIC LAYOUT
19. ADDITIONAL BUFFER PLANTING
20. EXISTING ATTENUATION AREA
21. M4 PEDESTRIAN BRIDGE CONNECTION
22. PRIMARY SITE ENTRANCE
23. FAIRY TRAIL
24. EXTERNAL ACCESSWAY
25. ACTIVITY TRAIL
26. EXISTING BUFFER PLANTING
27. COACH PARKING
28. CYCLE ROUTE ENTRANCE PLAZA
29. MEMORIAL GARDEN
30. EXISTING FOOTPATH RETAINED
31. EXISTING FOOTPATH RETAINED

HARDSCAPE ELEMENTS

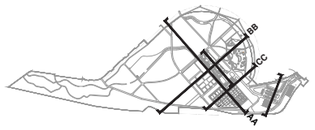
- BOUND GRAVEL SURFACING
- PROPOSED COBBLED PAVING
- EXISTING HISTORIC PAVING RETAINED
- FEATURE PATHWAY PAVING
- EXPOSED AGGREGATE CONCRETE PATHWAY
- CONCRETE FOOTPATH
- CYCLEWAY

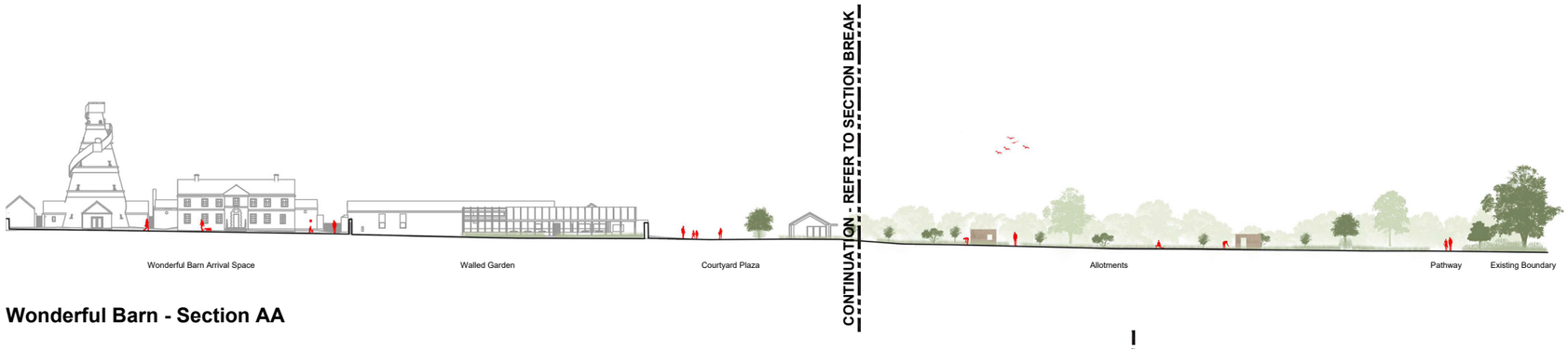
SOFTSCAPE ELEMENTS

- PROPOSED TREES
- PROPOSED ORNAMENTAL TREES
- PROPOSED SUPPLEMENTARY WOODLAND PLANTING
- EXISTING TREES RETAINED AND PROTECTED
- AMENITY LAWN
- MEADOW PLANTING
- SHRUB PLANTING
- BORDER PLANTING
- HEDGE PLANTING
- ALLOTMENT
- MOWN GRASS PATHWAY
- WOODLAND BUFFER PLANTING
- EXISTING PLANTING RETAINED
- 3M ACOUSTIC FENCE TO ACOUSTIC ENGINEER

Courtyard Detail

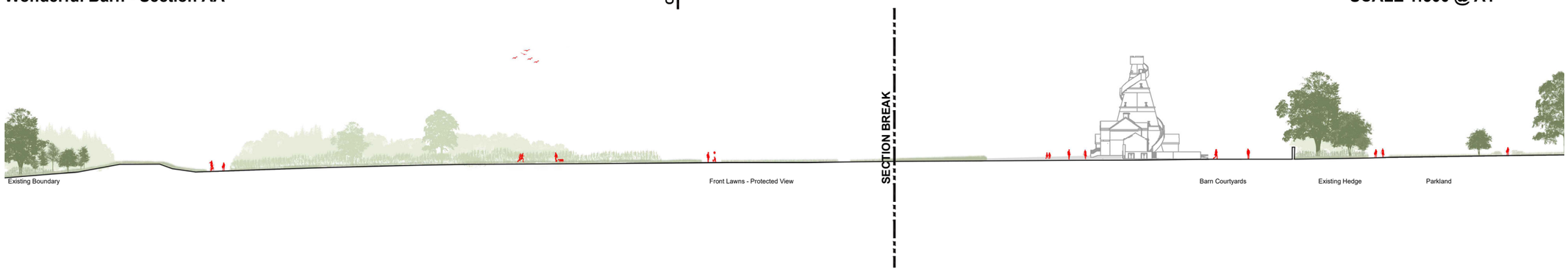
Sections

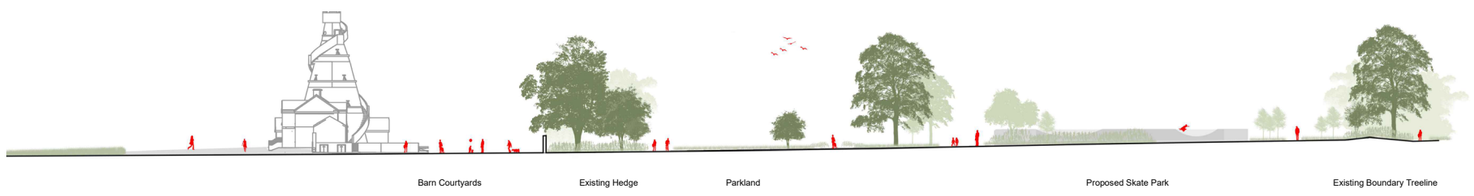




Wonderful Barn - Section AA

SCALE 1:500 @ A1





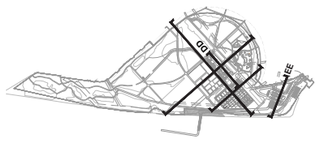
Wonderful Barn - Section BB

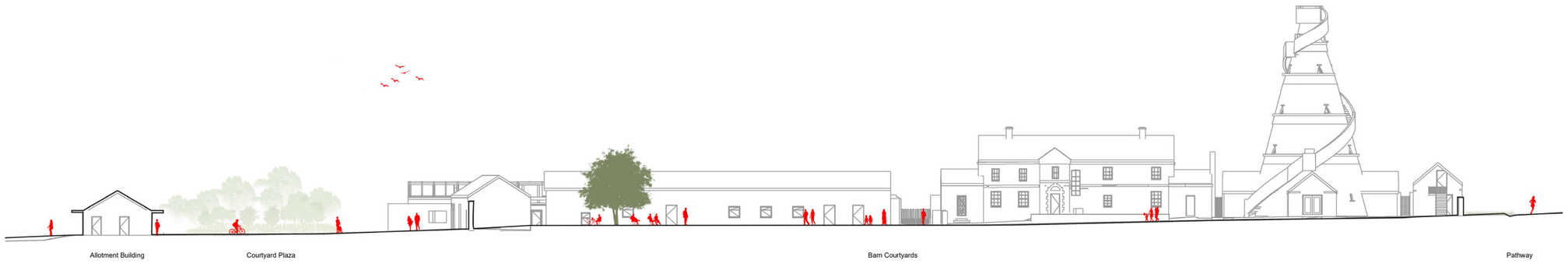
SCALE 1:500 @ A1

Wonderful Barn - Section CC

SCALE 1:500 @ A1

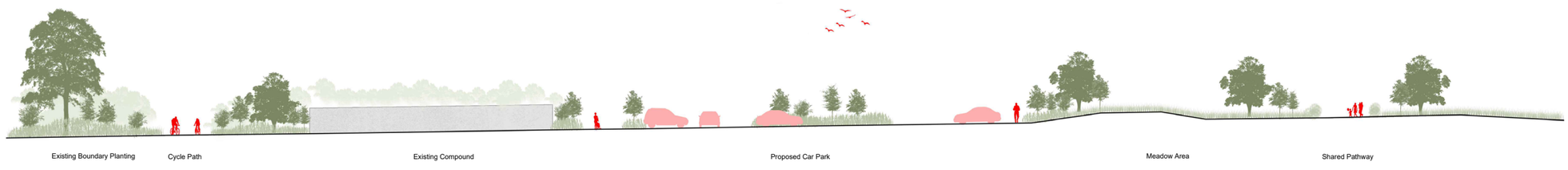
Sections





Wonderful Barn - Section DD

SCALE 1:250 @ A1



Wonderful Barn - Section EE

SCALE 1:250 @ A1

Materiality

05

Materiality - Hardworks

The hardworks palette has been chosen to provide a robust set of hard surfaces throughout the development.

Proposed hardworks materials will be sympathetic to existing historic elements. Historic cobbles within the courtyards will be excavated and retained.

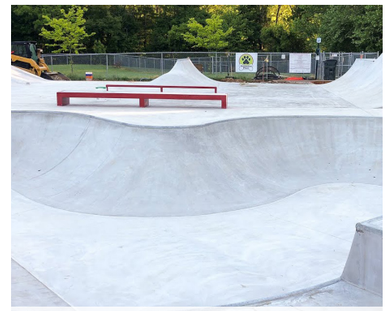
Footpaths within the site folllow a hierarchical categorisation of widths, users and materiality:

4m wide paths - Main spine shared surface, pedestrians, cyclists, fire tender access - Concrete aggregate surfacing
3m wide paths - Secondary circulation routes for pedestrians and cyclists - Self Binding Gravel
2m wide paths - Tertiary circulation option for pedestrians only - Mown grass paths

Exposed aggregate concrete pathways - Primary circulation (4m)

Historic cobbles blending with contemporary materials

Playground bark mulch

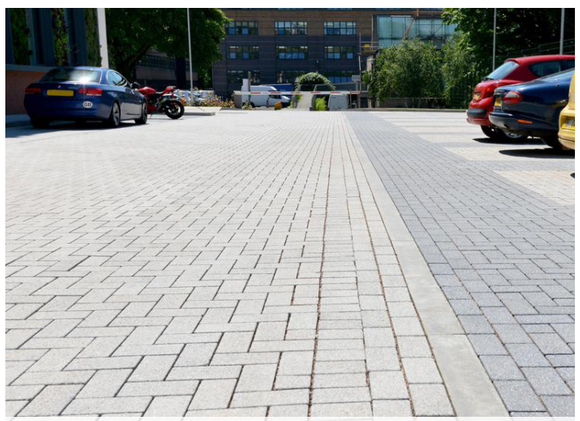


Skatepark concrete

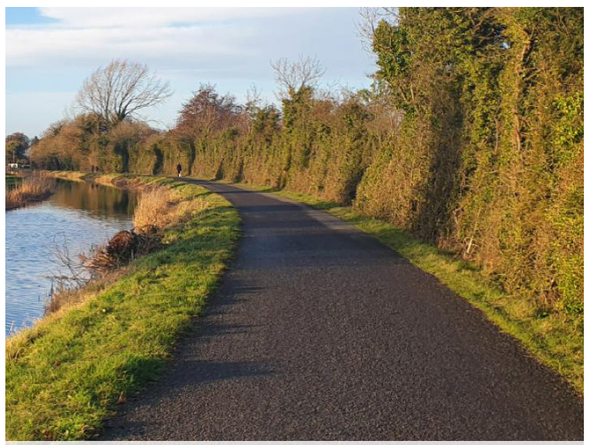
Loose gravel & timber edge - Allotments

Self binding gravel arrival space

Self-binding gravel pathways - Secondary circulation (3m)



Hydropave to parking bays



National cycleway/M4 Bride connection surface

Playground sand

MUGA astroturf

Softworks Strategy

The following sources have been used in the development of a suitable planting scheme that combines the overall design intent with a diverse planting palette to achieve a rich and sustainable softscape programme:

- All-Ireland Pollinator Plan 2021-2025
- National Biodiversity Action Plan 2017-2021

The landscape architecture proposal aims to create a diverse planting scheme that contributes to the overall biodiversity within the development and the wider area. Plant species have been selected with direct reference to the 'All-Ireland Pollinator Plan 2021-2025' and the approach aims to align with the specific policies and objectives as set out in that document

The overall planting approach is focused on creating a rich and biodiverse planting footprint in the context of a significant re-development of the site. The removal of existing planting is offset by the addition of pollinator friendly wildflower meadows, tree planting and shrub planting across the site. All retained tree protection measures will be in accordance with the mitigation recommendations prescribed in the ecologists and arborist report.

Softworks Palette

Native and naturalised tree species are to be planted within open space and green areas to increase opportunities for native wildlife. These will ultimately be semi-mature trees to allow quicker integration of the site into the surrounding environment

Tree planting will also be incorporated and will consist of species suitable to the scale of the local environment, providing key ecosystem enhancement as well adding to the already strong visual interest of the site.

Wildflower meadows, grassed areas, and lawns will also be a key element of the landscape plan. They will provide a strong habitat for insects and small birds and fauna, while also providing visual interest throughout large portions of the year. The minimal maintenance these areas require will also be an important element of their inclusion.

Parkland Setting

Native wildflower areas

Amenity Lawn Areas

Materiality - Softworks

The softworks palette for the site is a robust mix of parkland, formal demesne, walled garden, SuDS and woodland understorey planting.

Ref	Woodland Mix Standard Trees	Form	Age / Condition	Girth	Clear Stem	Height	Roots	Comments
Pav	Prunus avium	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Qr	Quercus robor	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Ps	Pinus sylvestris	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Fs	Fagus sylvatica	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Bpe	Betula pendula	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Ac	Acer campestre	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Sa	Sorbus aria	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Cb	Carpinus betulus	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown
Pc	Pyrus communis	Std	4 x transplanted	10-12 cm	2.0m	min. 300-350cm	Rootball	Well formed crown

Ref	Ornamental Trees	Form	Age / Condition	Girth	Clear Stem	Height	Roots	Comments
	SEMI MATURE							
Al	Amelanchier lamarckii "Robin Hill"	Std	4 x transplanted	20-25 cm	2.0m	min. 500-550cm	Rootball	Well formed crown
Ap	Acer palmatum "Osakasuki"	Std	4 x transplanted	20-25 cm	2.0m	min. 500-550cm	Rootball	Well formed crown
PcC	Pyrus calleryana "Chanticleer"	Std	4 x transplanted	20-25 cm	2.0m	min. 500-550cm	Rootball	Well formed crown

Ref	Orchard trees	Qty	Form	Age / Condition	Girth	Clear Stem	Height	Roots	Comments
	SEMI MATURE								
MJD	Malus "John Downie"	0	Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Me	Malus "Evereste"	0	Std	3 x transplanted	25-30 cm	2.0m	min. 500cm	Rootball	Well formed crown
Ms	Malus sylvestris	0	Std	3 x transplanted	25-30 cm	2.0m	min. 500cm	Rootball	Well formed crown

Ref	Parkland Trees	Qty	Form	Age / Condition	Girth	Clear Stem	Height	Roots	Comments
	SEMI MATURE								
Tc	Tilia cordata "Greenspire"		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Ee	Euonymus europaeus		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Ag	Alnus glutinosa		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Pp	Prunus padus		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Sa	Sorbus aucuparia		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown
Bp	Betula pubescens		Std	4 x transplanted	25-30 cm	2.0m	min. 450cm	Rootball	Well formed crown

Flowering Bulbs Mix (BM1)

	Planting Method	% Mix
Camassia, Muscari, Allium, Narcissus sp.	Hand Sown	100%

General Notes: Total Area for Bulb Mix is 1711.81 sq.m. (does not take gradients into account)

Amenity Grass Mix (GM)

	Planting Method	% Mix
Amenity Grass Mix	Hand Sown	100%

General Notes: Total Area for Grass Mix: TBC (does not take gradients into account)

Shrub Mix 1 (SM1)

No	Species	Designation	Root Type	Height mm	Spread mm	Total plants / sq.m	% Mix in Area
	Spiraea japonica	Container Grown, Bushy, 5 breaks	2 Litre Pot	300-400	300-400	4	10%
	Lavandula angustifolia "Hidcote"	Container Grown, Bushy, 7 breaks	5 Litre Pot	300-400	300-400	4	10%
	Sarcococca confusa	Container Grown, Bushy, 6 breaks	3 Litre Pot	200 - 300	200 - 300	2	10%
	Escalonia	Container Grown	2 Litre Pot	200 - 300	200 - 300	4	10%
	Pittosporum "Tom Thumb"	Container Grown	2 Litre Pot	300-400	300-400	5	10%
	Choisya ternata "Sundance"	Container Grown	2 Litre Pot	300-400	300-400	4	10%
	Ilex crenata	Container Grown, Bushy, 5 breaks	15 Litre Pot	800 - 1000	800-1000	4	10%
	Convolvulus cneorum	Container Grown	2 Litre Pot	200 - 300	200 - 300	8	10%
	Rosmarinus officinalis 'Prostratus'	Container Grown, Bushy, 4 breaks	2 Litre Pot	400-600	400 - 600	4	10%
	Prunus laurocerausus "otto luykem"	Container Grown	3 Litre Pot	400-600	400 - 600	3	10%

Shrub Mix 2 (SM2)

No	Species	Designation	Root Type	Height mm	Spread mm	Total plants / sq.m	% Mix in Area
	Sarcococca confusa	Container Grown, Bushy, 6 breaks	3 Litre Pot	200 - 300	200 - 300	2	12%
	Pittosporum "Tom Thumb"	Container Grown	2 Litre Pot	300-400	300-400	5	10%
	Choisya ternata "Sundance"	Container Grown	2 Litre Pot	300-400	300-400	4	12%
	Erysimun "Bawles Mauve"	Container Grown	2 Litre Pot	300-400	300-400	3	10%
	Hebe "Great Orme"	Container Grown, Bushy, 3 breaks	2 Litre Pot	200 - 300	200 - 300	2	10%
	Asteilia	Container Grown	2 Litre Pot	200 - 300	200 - 300	5	10%
	Polystichum setiferum	Container Grown	3 Litre Pot	200 - 300	200 - 300	5	10%
	Erica carnea "Nathalie"	Container Grown, Bushy, 3 breaks	2 Litre Pot	100 - 300	100 - 300	8	10%
	Pyracantha coccinea	Container Grown	3 Litre Pot	400-600	400 - 600	3	4%
	Prunus laurocerausus "otto luykem"	Container Grown	3 Litre Pot	400-600	400 - 600	3	12%

Wetland Marginal Mix 1 (WM)

	Species	Designation	Root Type	Height mm	Spread mm	Total plants / sq.m	% Mix in Area
	Caltha Palustris	1L Aquatic Pod	Aquatic Pod	100-200	300-500	5	20%
	Isolepis cernua	1L Aquatic Pod	Aquatic Pod	100-200	300-400	5	20%
	Typha latifolia	1L Aquatic Pod	Aquatic Pod	100-200	300-500	3	15%
	Ranunculus lingua	1L Aquatic Pod	Aquatic Pod	100-200	400-500	4	15%
	Lythrum salcaria	1L Aquatic Pod	Aquatic Pod	100-200	400-500	3	15%
	Iris pseudacorus	1L Aquatic Pod	Aquatic Pod	100-200	200-300	4	15%

Wildflower Meadow Grass Mix (WM)

	Planting Method	% Mix
GF03 All-Ireland Pollinator Plan Wildflower Mixture	Hand Sown	100%

General Notes: Total Area for Grass Mix TBC (does not take gradients into account)

Native Hedgerow Mix (NH)

	Species	Designation	Root Type	Height mm	% Mix in Area
WHIPS - 70%					
	Prunus spinosa	1+2: transplant	Bareroot	80-100cm	20%
	Crataegus monogyna	1+1: transplant	Bareroot	80-100cm	30%
	Sambucus nigra	1+1: transplant	Bareroot	60-80cm	5%
	Corylus avellana	1+1: transplant	Bareroot	40-60cm	5%
	Ilex aquifolium	Well formed habit	2L	40-60cm	2.5%
	Euonymus europaea	1+1: transplant	Bareroot	40-60cm	2.5%
	Rosa canina	1+0: transplant	Bareroot	40-50cm	2.5%
	Viburnum Opulus	1+1: transplant	Bareroot	40-60cm	2.5%
FEATHERED - 20%					
	Crataegus monogyna		Bareroot	150-175cm	10%
	Prunus padus		Bareroot	150-175cm	10%
CLIMBERS - 10%					
	Lonicera periclymenum		2L	30-40cm	4%
	Lonicera caprifolium		2L	30-40cm	3%
	Rosa rubignosa		2L	30-40cm	3%

Rain Garden Mix (RG)

No	Species	Designation	Root Type	Height mm	Spread mm	Total plants / sq.m	% Mix in Area
	Sedum Herbstfreude ('Autumn Joy')	Container Grown	3 Litre Pot	300-400	300-400	4	3%
	Rudbeckia fulgida "Goldstrum"	Container Grown	2 Litre Pot	300-400	300-400	4	3%
	Perovskia atriplicifolia	Container Grown	2 Litre Pot	1000 - 1500	500-1000	2	3%
	Salvia nemorosa "Iubecca"	Container Grown	2 Litre Pot	100 - 500	100 - 500	4	3%
	Aster ageratoides "asran "	Container Grown	2 Litre Pot	300-400	300-400	5	3%
	Aster ageratoides "Stardust"	Container Grown	2 Litre Pot	300-400	300-400	5	3%
	Aster thomsonii	Container Grown	2 Litre Pot	100 - 500	100 - 500	8	3%
	Liatris spicata	Container Grown	2 Litre Pot	300-400	300-400	4	3%
	Osmunda regalis	Container Grown	3 Litre Pot	300-400	300-400	2	3%
	Lobelia cardanalis	Container Grown	2 Litre Pot	300-400	300-400	3	3%
	Echinacea purpurea	Container Grown	3 Litre Pot	300-400	300-400	3	3%
	Geranium sanguineum	Container Grown	2 Litre Pot	100 - 500	100 - 500	5	3%
	Stipa tenuissima 'Pony Tails'	Container Grown	3 Litre Pot	200 - 300	200 - 300	5	3%
	Carex oshimensis "Everest"	Container Grown	2 Litre Pot	200 - 300	200 - 300	5	3%
	Nepeta 'Six Hills Giant'	Container Grown	3 Litre Pot	200 - 300	200 - 300	4	3%
	Persicaria bistorta	Container Grown	3 Litre Pot	200 - 300	200 - 300	4	3%
	Astrantia major	Container Grown	2 Litre Pot	200 - 300	200 - 300	4	3%
	Coreopsis grandiflora "Sunfire"	Container Grown	2 Litre Pot	100 - 500	100 - 500	3	3%
	Knautia macedonica	Container Grown	2 Litre Pot	200 - 300	200 - 300	3	3%
	Leucanthemum × superbum	Container Grown	2 Litre Pot	200 - 300	200 - 300	3	3%

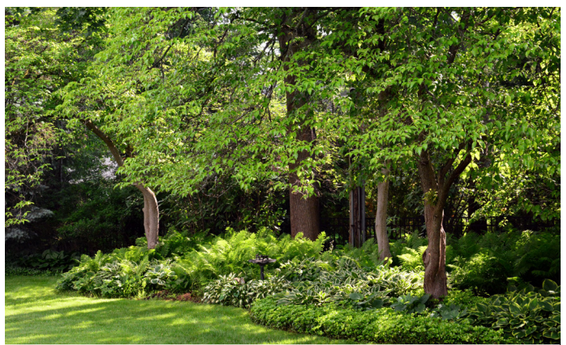
Swale Grass Mix (SG)

	Planting Method	% Mix
Wetland wild flora mix	Hand Sown	100%

General Notes: Total Area : TBC (does not take gradients into account)

Wildflower meadows

SuDS planting



Parkland trees & understorey planting

Formal demesne planting

Site Furniture - Natural Playground & Incidental Play

Furniture has been selected that is sympathetic to the landscape character of the site. Where possible, natural play equipment and timber furniture should be used.

Natural playground typology

Encouraging play and learning through natural elements

Natural timber play units

Incidental play boulders

Mounded landscape

Natural timber playground equipment

Climbing logs on incline

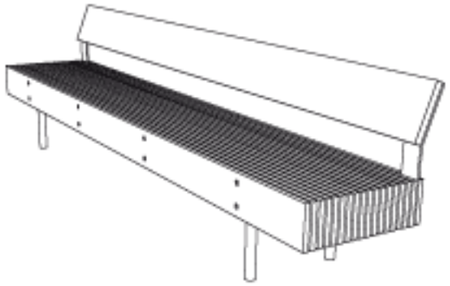
Stepping stumps dotted along play routes

Hollowed log tunnels

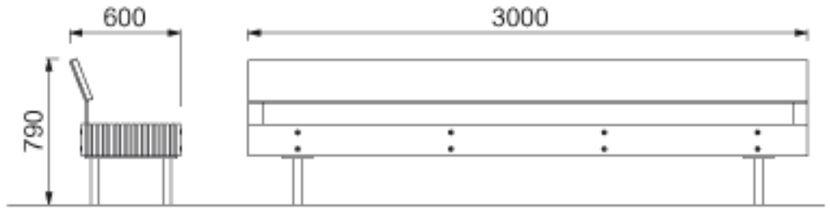
Incidental play stepping stumps

Incidental play logs

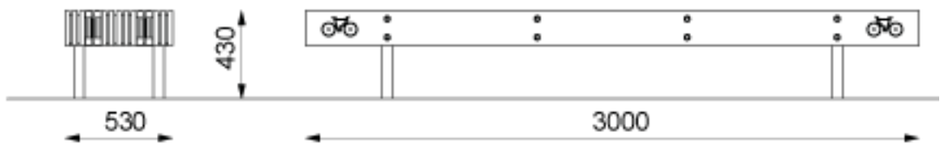
Site Furniture - Seating

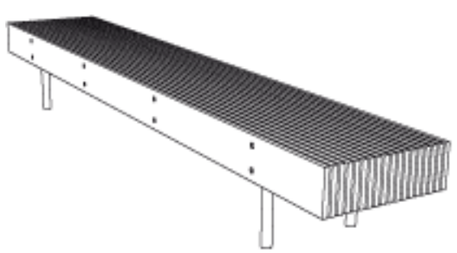


Long bench with back

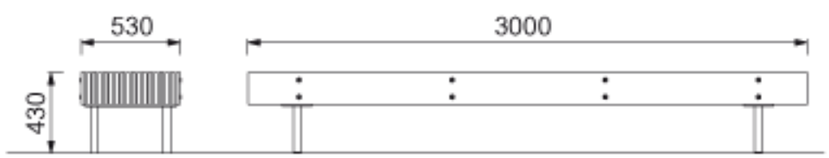


Long bench with bicycle rack

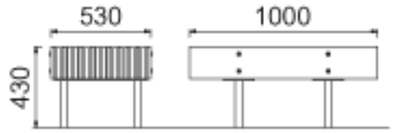




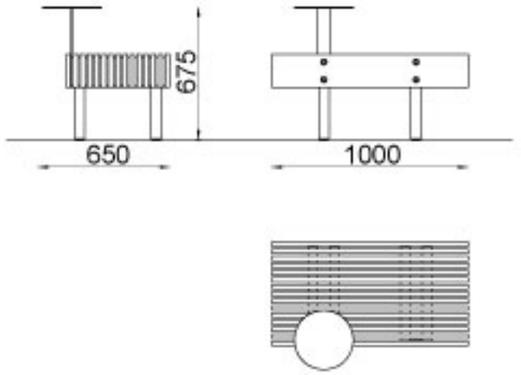
Long bench



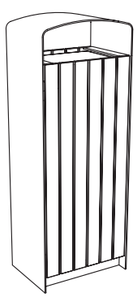
Site Furniture - Seating, Bins & Bollards

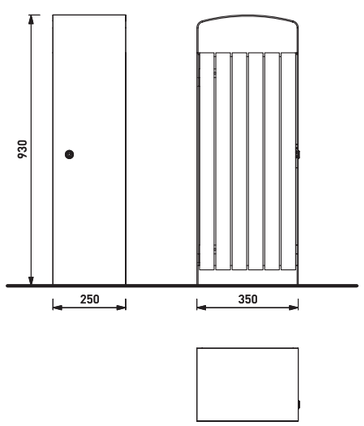


Single bench

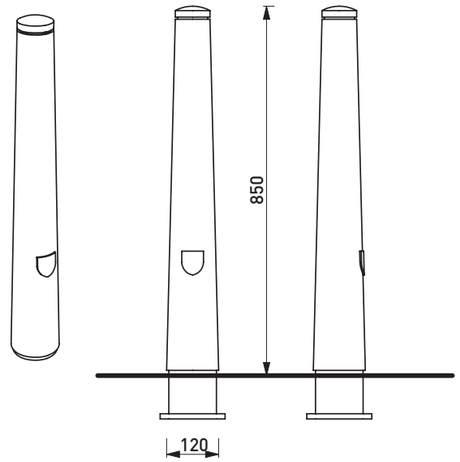


Single bench with table





Wood panelled litter bin



Aluminium alloy street bollard

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