

Bessborough Farm



SHiPSEYBARRY
MASTERPLANNING | URBANISM | ARCHITECTURE



ARCHITECTURAL DESIGN STATEMENT

commissioned by ESTUARY VIEW ENTERPRISES 2020 LTD

MARCH 2022

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Introduction



PROJECT

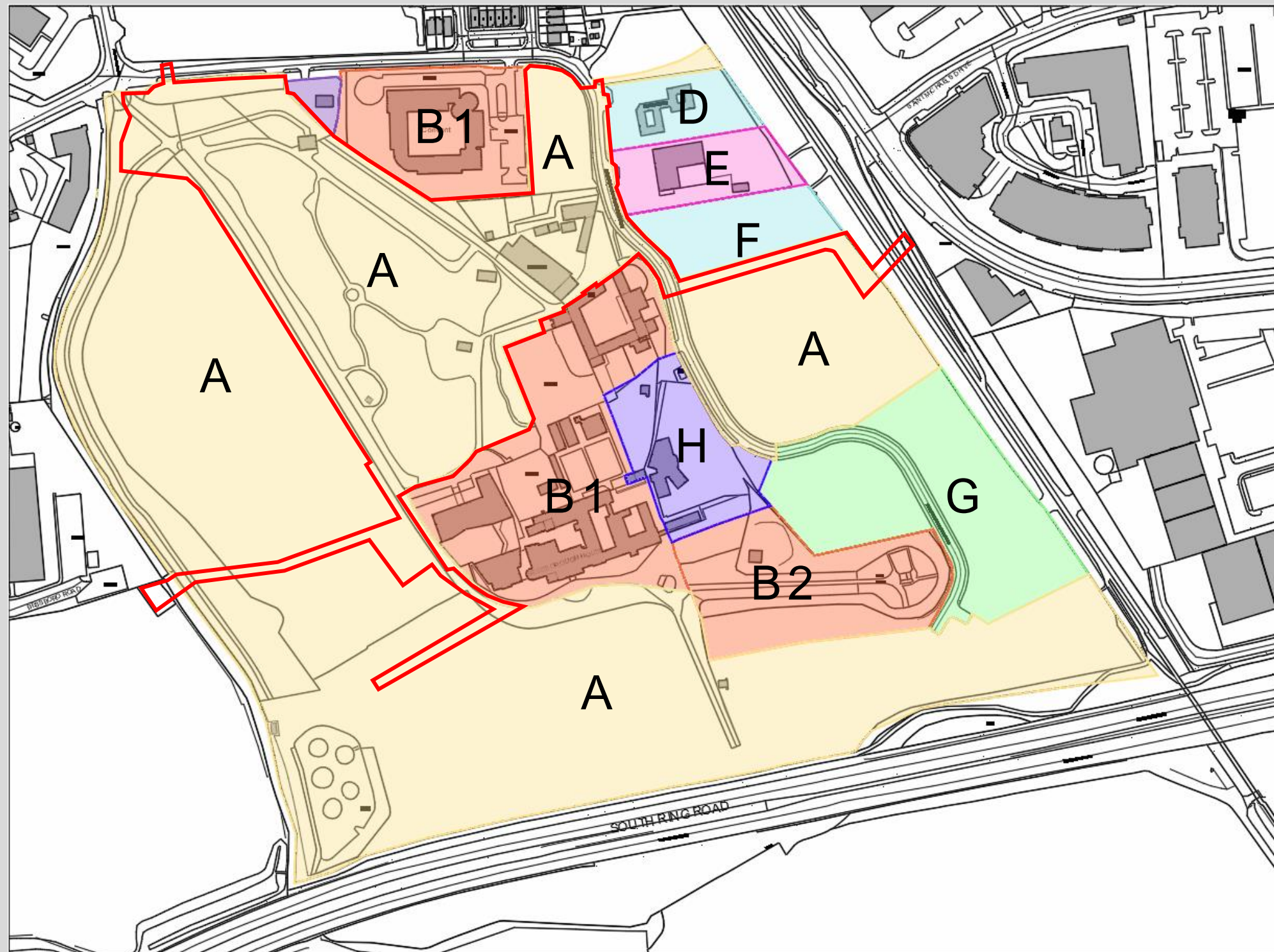
SHIPSEYBARRY were appointed by ESTUARY VIEW ENTERPRISES 2020 LTD (EVE) in early 2021 to design a residential 'Build to Sell' Scheme at the subject site –The Farm (PHASE 1) in Bessborough. The application site represents 1 of 2 sites (phase 1 & phase 2) submitted as concurrent planning applications. The scheme proposal is to the North of the other scheduled application (The Meadows –PHASE 2). Zoning on the site permits sensitive development to the North of Bessborough House with a portion of site to the North of the Farm area zoned residential. This combined with the proposed CMATS rail linkage nearby provides an ideal location for new sustainable communities to emerge.

The site design has been set out in 2 distinct areas 'The Farm' area and 'the Park' area. Architecturally each area has individual needs in terms of sensitive architectural response. The Farm area is designed in consultation with John Cronin & Associates guidance on heritage aspects to the historical buildings and their setting while the Park area has been subject of detailed guidance by Arbo Care and Ilsa Rutgers landscape design.

The development consists of 140 build to sell apartments, associated supporting uses, a 25 child creche facility, communal open space areas, landscaping, surface car parking spaces, bicycle parking spaces, bin stores, public lighting and all ancillary site development works. The development also consists of the demolition of selected farm buildings and the refurbishment and incorporation of existing buildings on site. The development is arranged around 3 new blocks, Buildings C, D & E with building C located in a parkland setting while buildings D & E located around the former farm yard area. A central landscape area forms the main communal spaces to the scheme.

Overleaf is an overview of the proposal and design teams approach to the site for the Boards consideration set out under critical headings around the design.

SHIPSEYBARRY



SITE OWNERSHIP

A EVE (APPLICANT) LAND OWNERSHIP - 40.3 ACRES

B1 Convent Congregation of the Sacred Hearts of Jesus and Mary

B2 Convent Congregation of the Sacred Hearts of Jesus and Mary
- 2.75 Acres

D HSE

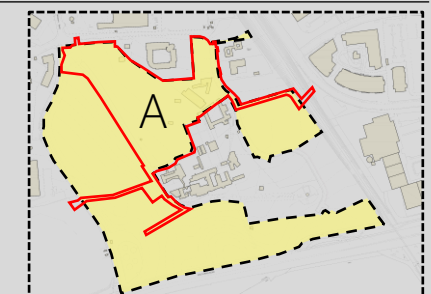
E ALZHEIMERS SOCIETY

F HSE

G MWB TWO LTD.

H BESSBOROUGH CRECHE

Lands A are owned by ESTUARY VIEW ENTERPRISES 2020 LIMITED – the applicant. Lands A represent approximately 16.3 hectares (40.3 acres). Lands are fully serviced and accessible to adjoining greenway & road networks.

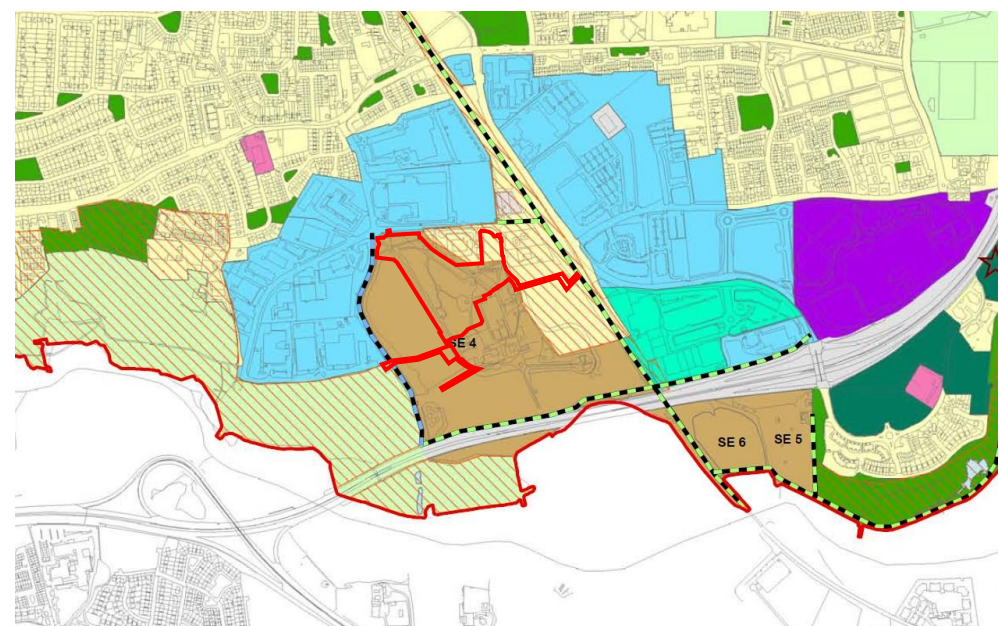


POLICY AND ZONING

CORK CITY DEVELOPMENT PLAN 2015-2021

The site has a number of zonings across various areas, which are residential in an area of high landscape value to the north of the Farm and also landscape preservation zone to the south and west .

The SE-4 designation has 3 clear objectives for consideration of the site. The proposal seeks to satisfy these objectives through its design approach and layout.



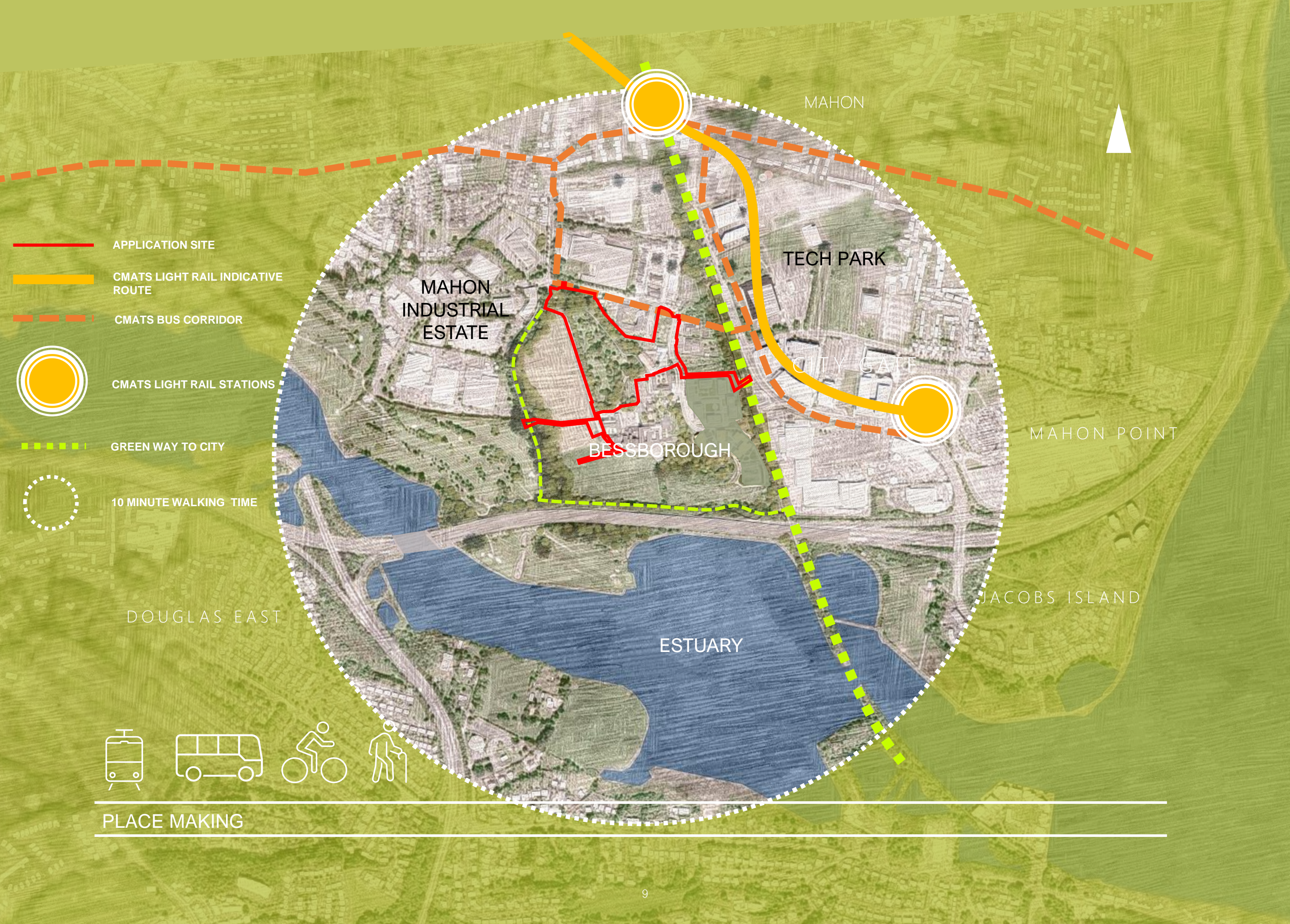
- 12-Landscape preservation zone
- Areas of high landscape value
- 4- Residential, local services and industrial uses

- Amenity routes
- Proposed new amenity routes / upgrades



SE-4 Bessborough House J.G.C.B.

1. To re-instate historic landscape
2. To seek use of grounds as a neighbourhood park in context of the local areas plan (H).
3. To allow development within the immediate environs to the north of Bessborough house consistent with the landscape and protected structure of the site.



- APPLICATION SITE
- CMATS LIGHT RAIL INDICATIVE ROUTE
- CMATS BUS CORRIDOR
- CMATS LIGHT RAIL STATIONS
- GREEN WAY TO CITY
- 10 MINUTE WALKING TIME



PLACE MAKING

Stakeholder engagement

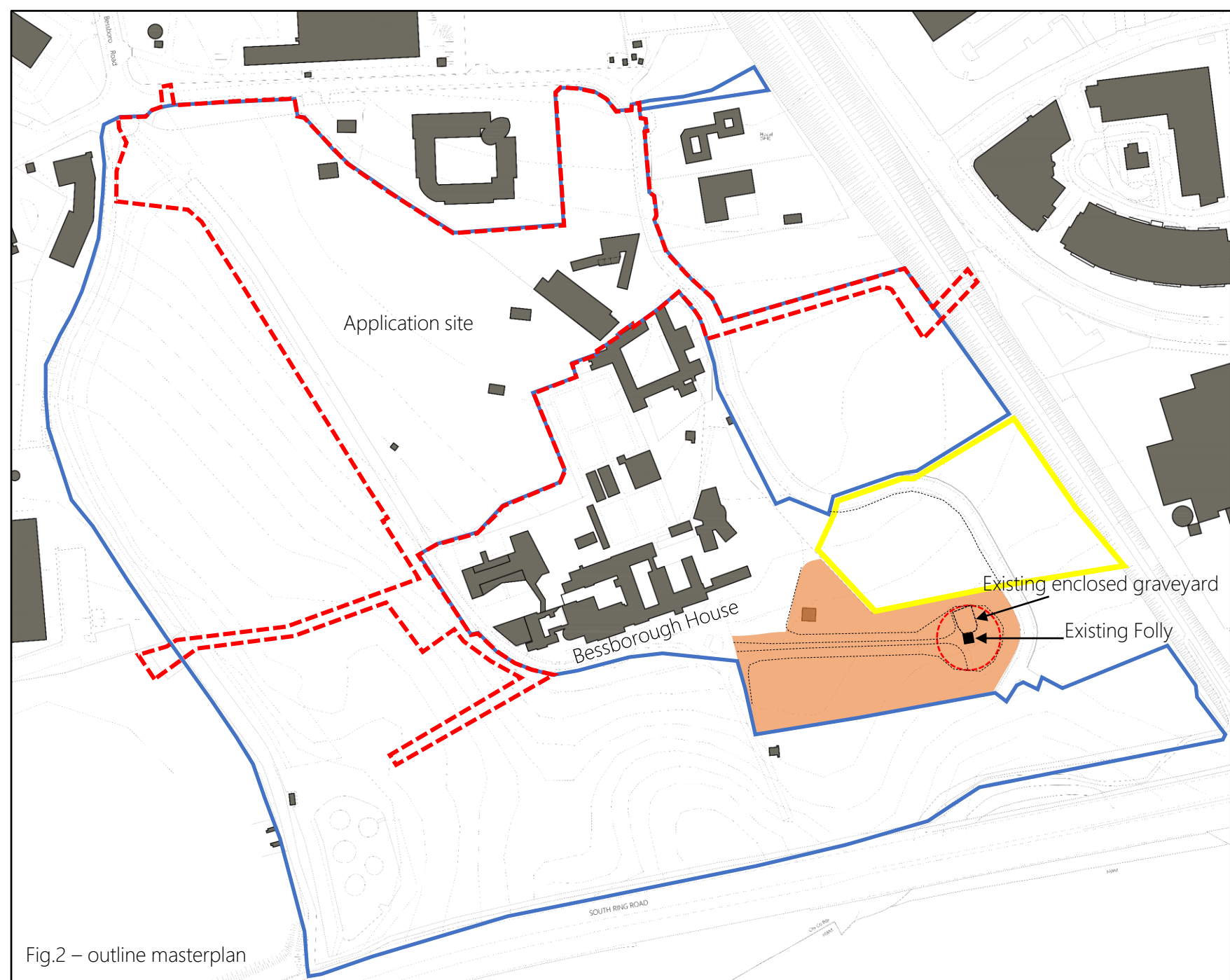
BESSBOROUGH SURVIVOR ENGAGEMENT - CSSA

The Site is located on a portion of the lands that formed the extensive former Bessborough estate and totalling approximately 200 acres to include lands to the North East and West of the site. These original estate lands include adjoining new ownerships now used for a range of activities from a golf club to the West, to greenway, retail, medical and office use to the East and new residential to the North.

A significant portion of the environs history is when Bessborough House to the South of the site operated as a Mother & Baby Home from 1922 to 1999. Given the sensitivity associated with the location and survivors concerns as presented at the recent oral hearing to the Gateway View application (2021), engagement was sought with the CSSA (Cork Survivors & Supporters Alliance) from an early design stage in the design process.



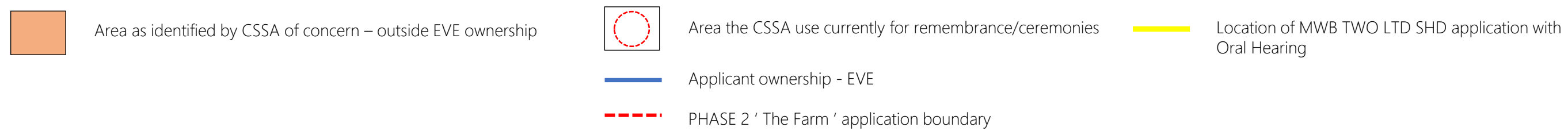
Meeting 1- June 2021 at SHIPSEYBARRY Offices : the Promoter, their Architect and representatives of the CSSA met to discuss potential development across the site in ownership of EVE. A high level Masterplan approach was presented to the CSSA with development proposed to the North East and Western lands while the Southern portion of the park would be given over to a remembrance park (see fig.1).



Meeting 2 - June 2021 on site at Bessborough : the Promoter, his Architects, and representatives of the CSSA met on site for a walk around. The CSSA showed the areas of concern in detail and communicated their aspirations for a memorial location both currently outside the CSSA and applicants control. The CSSA reiterated their position as not being opposed to development on the wider site, as stated publicly previously, and their primary concerns and ambition relate to the areas highlighted at the site visit (represented in Fig.2). Their preference is for no ground disturbance in these areas and the location to be memorialised and protected for survivors, family's and the public to visit. The CSSA also stated the EVE proposed development locations were not of direct concern to their sensitivities.

Meeting 3 – January 2022 on site at Bessborough - the Architect and representatives of the CSSA walked area for scheduled ground investigation works for drainage assessments . The CSSA met with on site Forensic Archaeologist and Osteo Archaeologist to discuss practice and methodologies in areas of investigation .

Meeting 4 – March 2022 at SHIPSEYBARRY Offices with the promoter , the Architect and the CSSA representatives . The Architects presented the submission ahead of application submission.



Masterplan



NORTH FIELDS

THE FARM

THE MEADOWS

CITY GREENWAY

BESSBOROUGH HOUSE

FOLLY

REMEBRANCE PARK



BESSBOROUGH MASTERPLAN

E.V.E, the promoters land holding extends to approximately 40.3 acres across part of the former Bessborough Estate. Other primary land holdings are principally held by The Congregation of the Sacred Hearts of Jesus and Mary, the H.S.E. and the Alzheimer's society. Given this, the EVE land holding provided an opportunity to open up the privately held land bank to offer a large publicly accessible amenity parkland setting with new communities integrated into this highly accessible location. Given the

zoning objects, heritage landscape setting and area specific parameters, the extent and nature of any new development results in a variety of development approaches which serve to address each specific areas constraints and opportunities. The proposed Masterplan is composed of a number of these areas which have location specific approaches to design and assembly while integrating to a wider considered approach to the over-all site.

Within the EVE holding and masterplan, there are 5 areas identified as having specific criteria for design approaches responding to their immediate and wider site considerations. Though these areas have varied Architectural scales and expression, all these areas are designed to integrate, compliment and connect with each others location and design philosophy to offer a coherent masterplan approach to the larger site.



CONVENT

FARM

PARK LAND

NORTH FIELDS

National Memorial &
Record Centre

Farm Girls
Memorial

STABLES

THE MEADOWS

FOLLY

DESTINATION PLAY
AREA

BESSBOROUGH HOUSE

NEW REMBERANCE PARK
ceded to city / stakeholders

REFLECTION POND

Icehouse

GREENWAY TO CITY

BRIDGE

ESTUARY



NORTH FIELDS

THE FARM

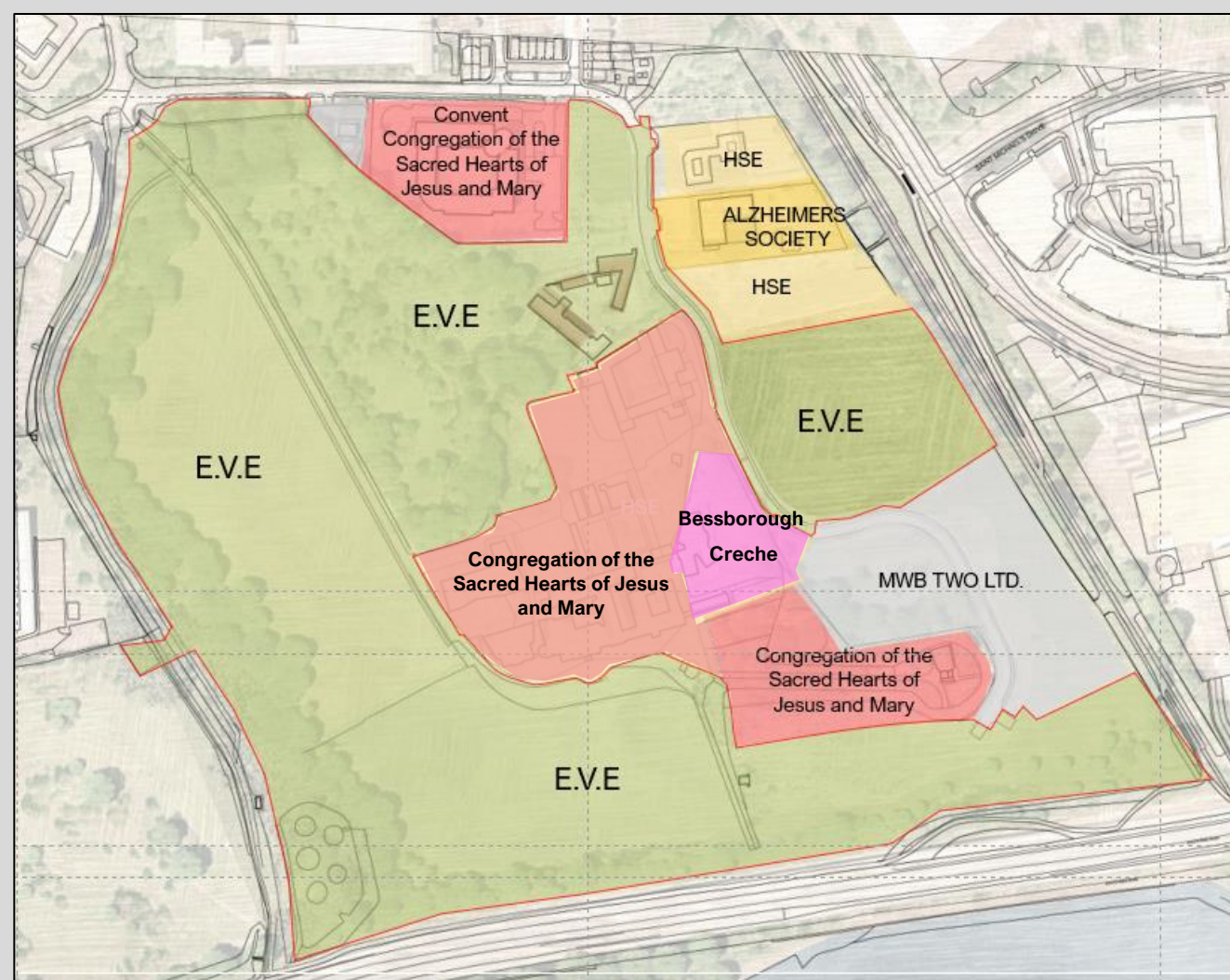
THE MEADOWS

BESSBOROUGH HOUSE

REMEMBRANCE PARK

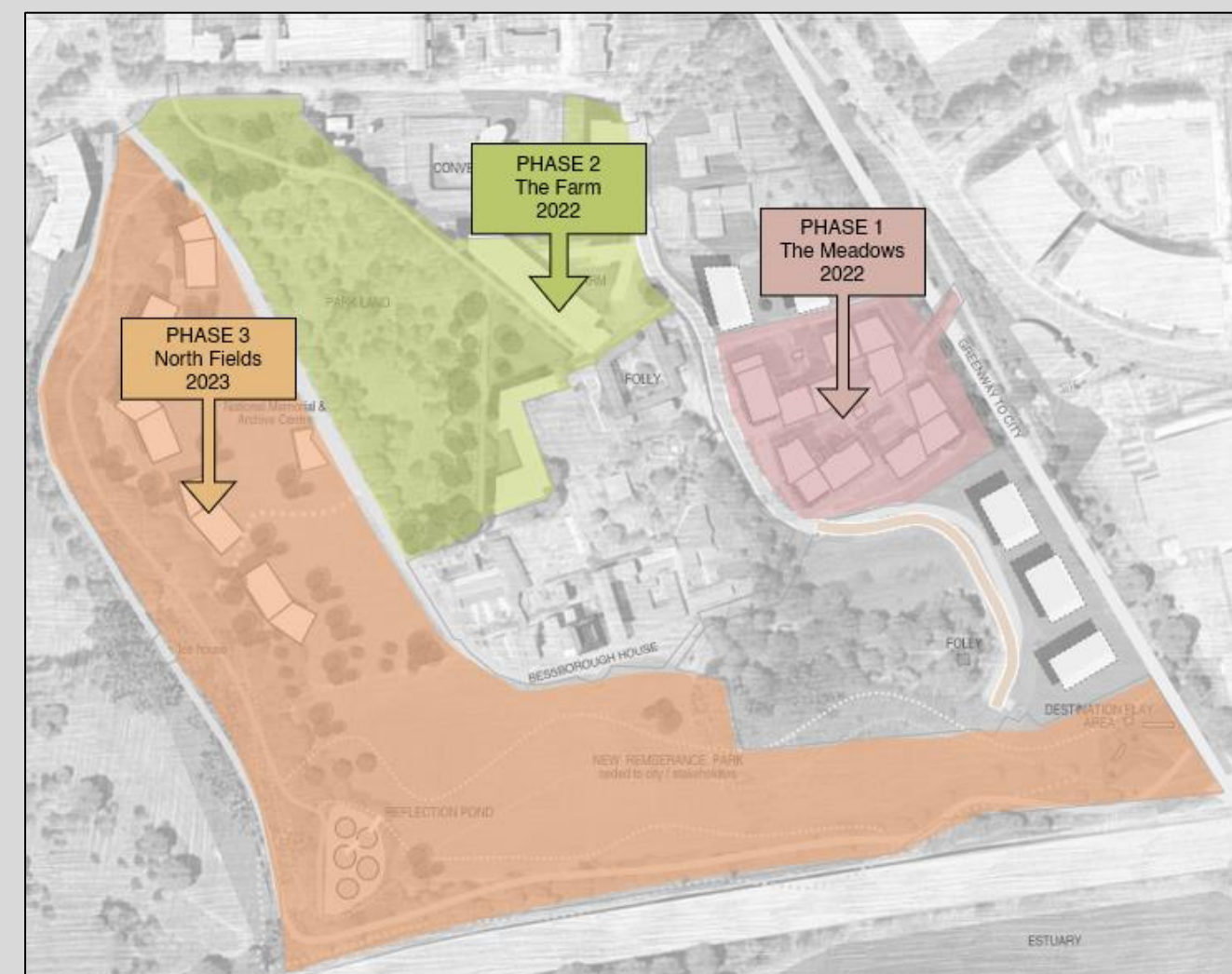
N40 SOUTH RING ROAD

ESTUARY



SITE OWNERSHIP

Lands in GREEN are owned by ESTUARY VIEW ENTERPRISES 2020 LIMITED – the applicant. These Lands represent approximately 40.3 acres . Lands are fully serviced and accessible to adjoining greenway & road networks.



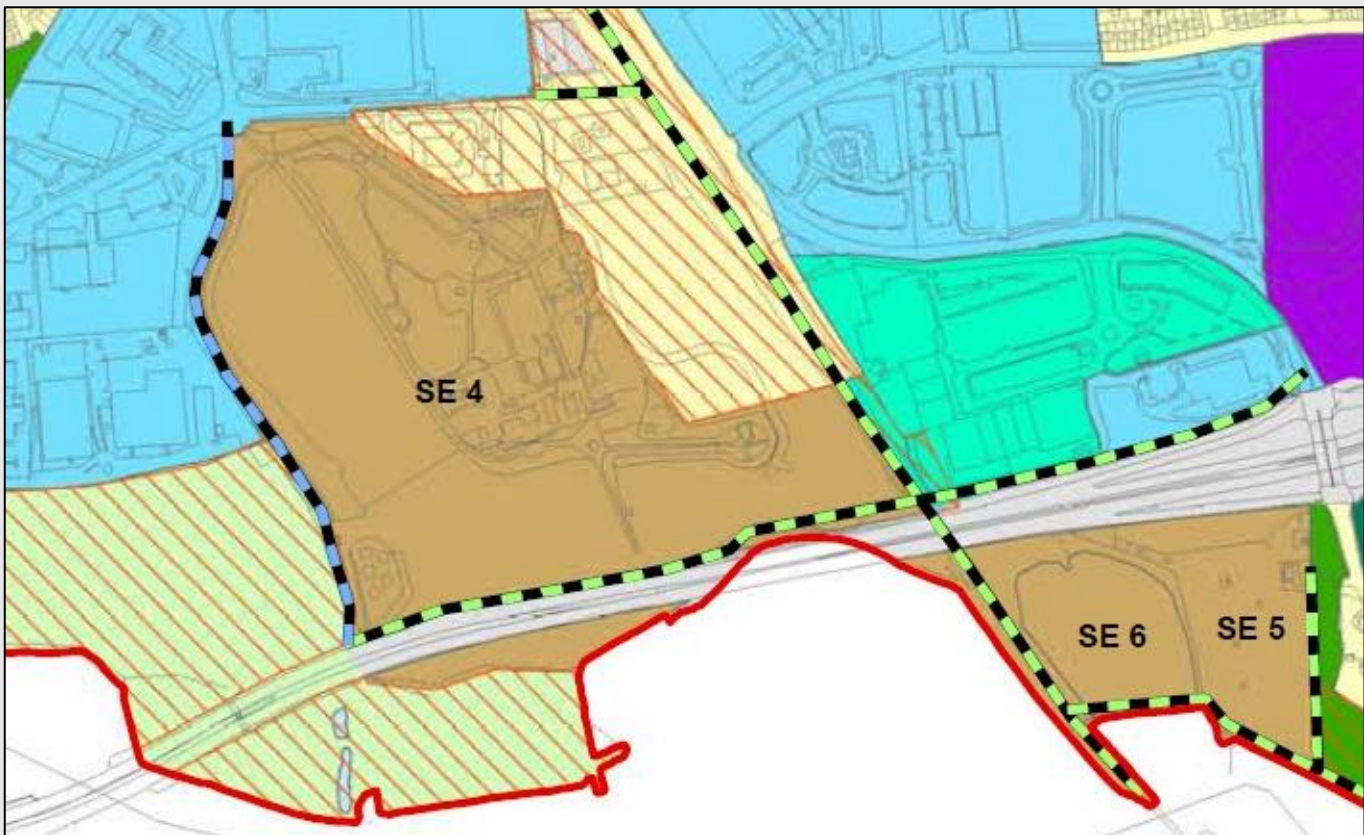
PROJECT PHASING

The masterplan is delivered over 3 planning applications with PHASES 1 & 2 running concurrently in 2022 and the PHASE 3 application to follow after. A new bridge proposal to the green way is captured in both Phase 1 & Phase 2 applications to address the issue of independent connectivity being made available to each application. Phase 3 is currently at a preliminary design stage and may alter on full engagement with Cork City Council .

POLICY AND ZONING

CORK CITY DEVELOPMENT PLAN 2015-2021

The Masterplan area has 2 principle zonings across the EVE holding, which are in an area of high landscape value. Residential zonings are across 2 of the proposed phases (phase 1 & 2) with phase 2 having a significant portion of SE4 Zoning. Phase 3 is entirely within SE4 zoning.



- 12-landscape preservation zone
- Areas of high landscape value
- 4- residential, local services and industrial uses
- Amenity routes
- Proposed new amenity routes / upgrades

SE-4 Bessborough House J.G.C.B.

1. To re-instate historic landscape
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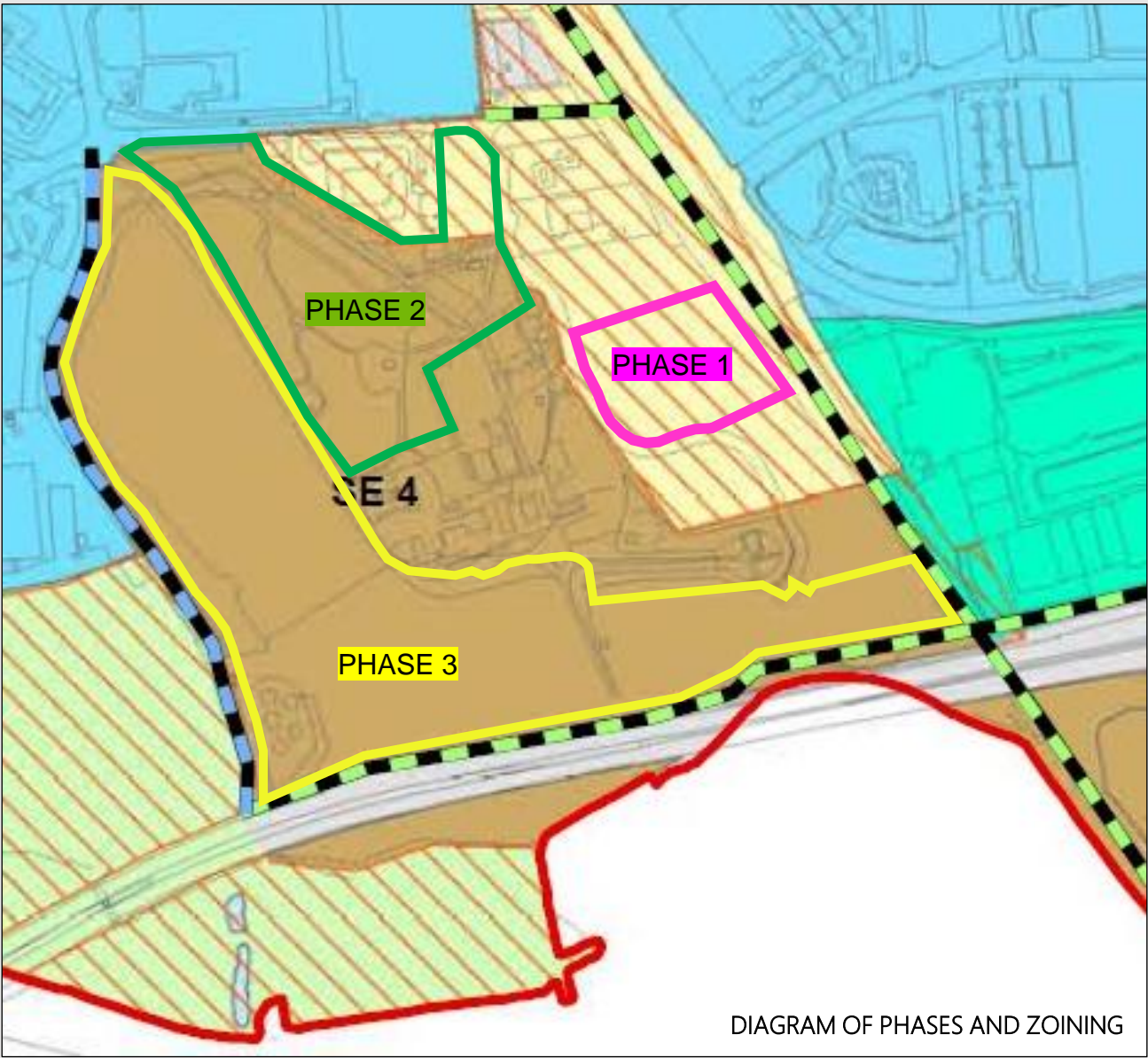


DIAGRAM OF PHASES AND ZONING

The specific zoning objectives are addressed in phased applications across the masterplan :

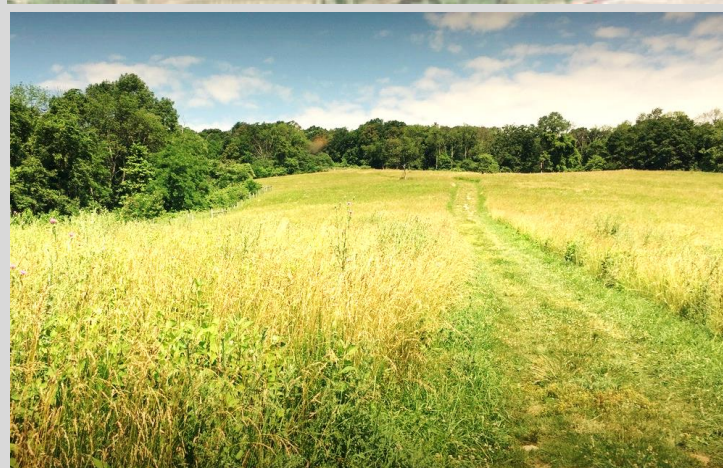
- Phase 1 - is a residential scheme designed to be cognisant of the location in an area of high landscape value.
- Phase 2 - has both residential zoning in an area of high landscape value and SE4 zoning. With regard to SE4 it delivers elements of reinstatement of historic landscape while also development being in the environs to the North of Bessborough House.
- Phase 3 - has SE4 zoning across its entirety. It delivers elements of reinstatement of historic landscape, has development to the environs to the North of Bessborough House and delivers Neighbourhood Park objective.



THE OPENING UP

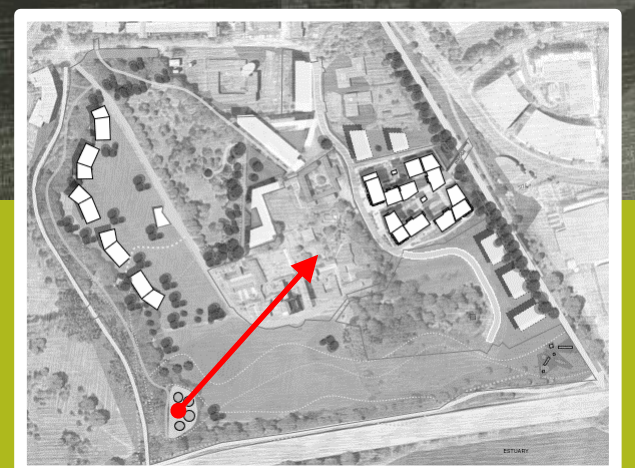


Critical to assessing the potential of the site, is the core vision to offer substantial tracks of land to be made 'open' and accessible to the public. In Phase 2 significant parkland (6 acres) is made accessible to the North of Bessborough House while in Phase 3, 'The Bishops walk' is made accessible with a Northern Parkland provided. Notably, to the South, 12.5 acres are provided to accommodate the Neighbourhood park objective as a remembrance park, to be ceded to the city/stakeholders in the future. The extent of public amenity adjoining new development proposals is made feasible by achieving the order of quantum of development as proposed within the promoters portion of the masterplan lands.



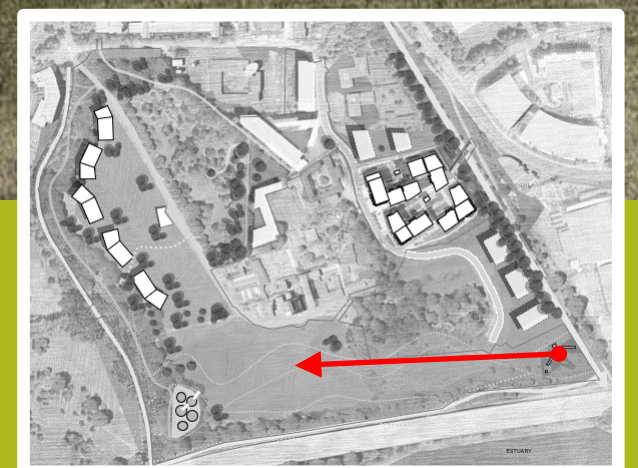


Concept view of the historic reflection pond with proposed clearance and renewed viewability of the main house across the remembrance park to the south



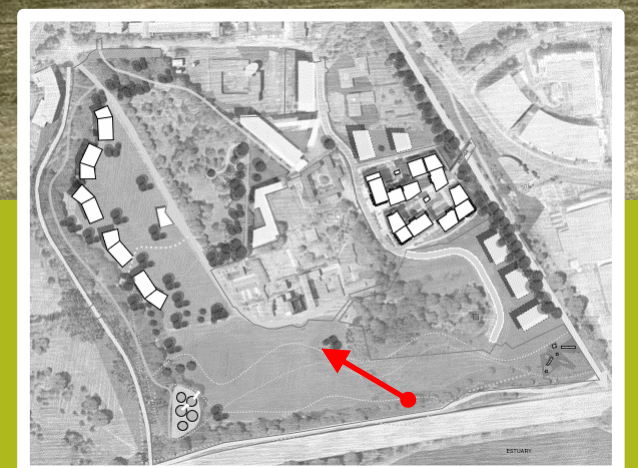


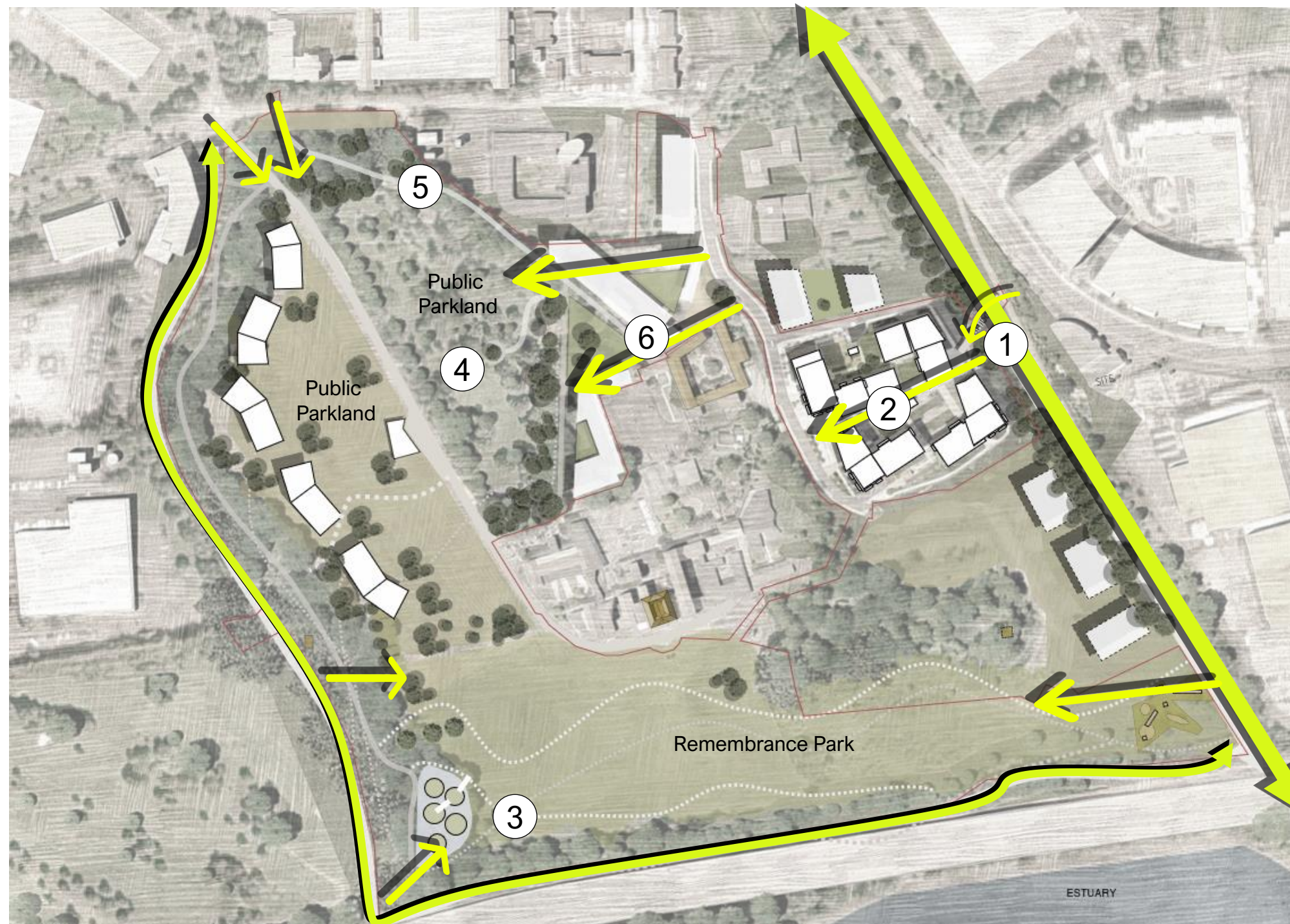
Concept view of eastern access point to new remembrance park
looking west



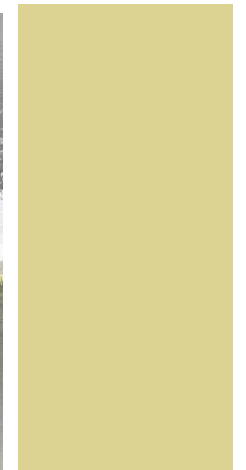
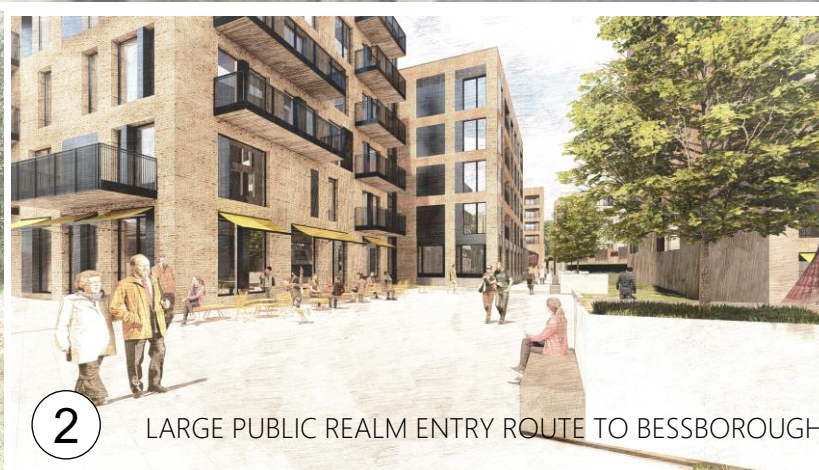


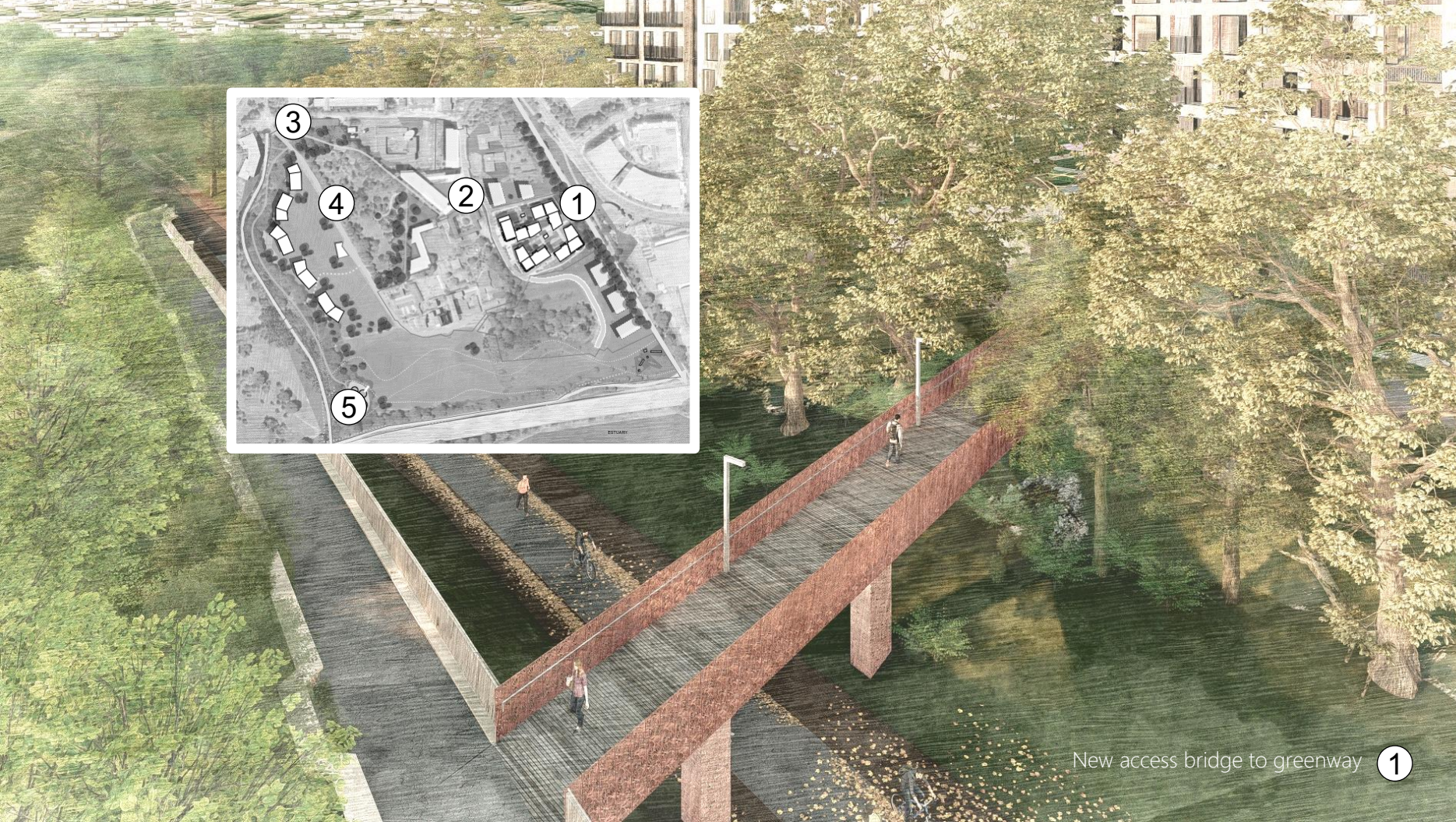
Concept view of new remembrance park looking west with Bessborough House to centre and Phase 3 and phase 2 to the left and right respectively





PERMEABILITY





Across the Masterplan area ,a number of special character areas are present which are informed by the historic context and arrangement of the hierarchy and designed layout of the original estate . When analysing these character areas it is apparent that varying design responses are required to retain and enhance the original landscape intent of the estate . In arriving at the assessment of areas ,the design team is lead by Forest Bird's historic landscape assessment report (included in EIAR Appendix 3-4) .

AREA A – Eastern Meadow area sits between the historic arrangement of Bessborough house , its walled gardens secondary edged out buildings and farm complex to its West and sinuous carved out rail line on the Eastern Boundary . These two primary constructed arrangements in the landscape are critical elements to be considered in an new arrangement of buildings to be formed between . Opportunities present to reflect both historical geometries , though not orthogonal , in a composition to reflect and support each's arrangement in the landscape . Mature tree buffers on both East and West boundaries allow the site remoteness to sensitive views particularly from South on Bessborough House . Eastern more recent commercial development scales in proximity on the greenway boundary suggest a more dense scale in this location.

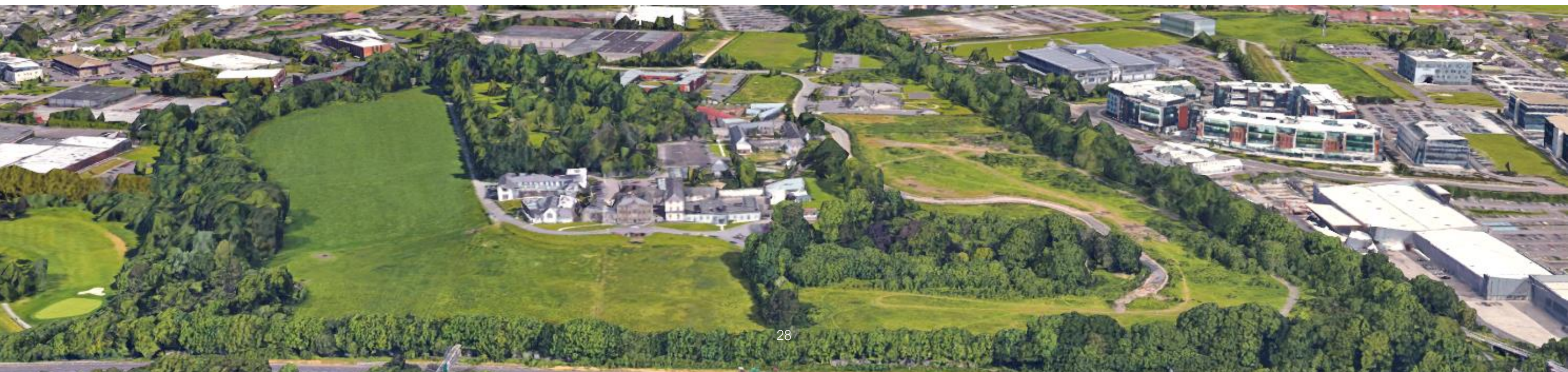
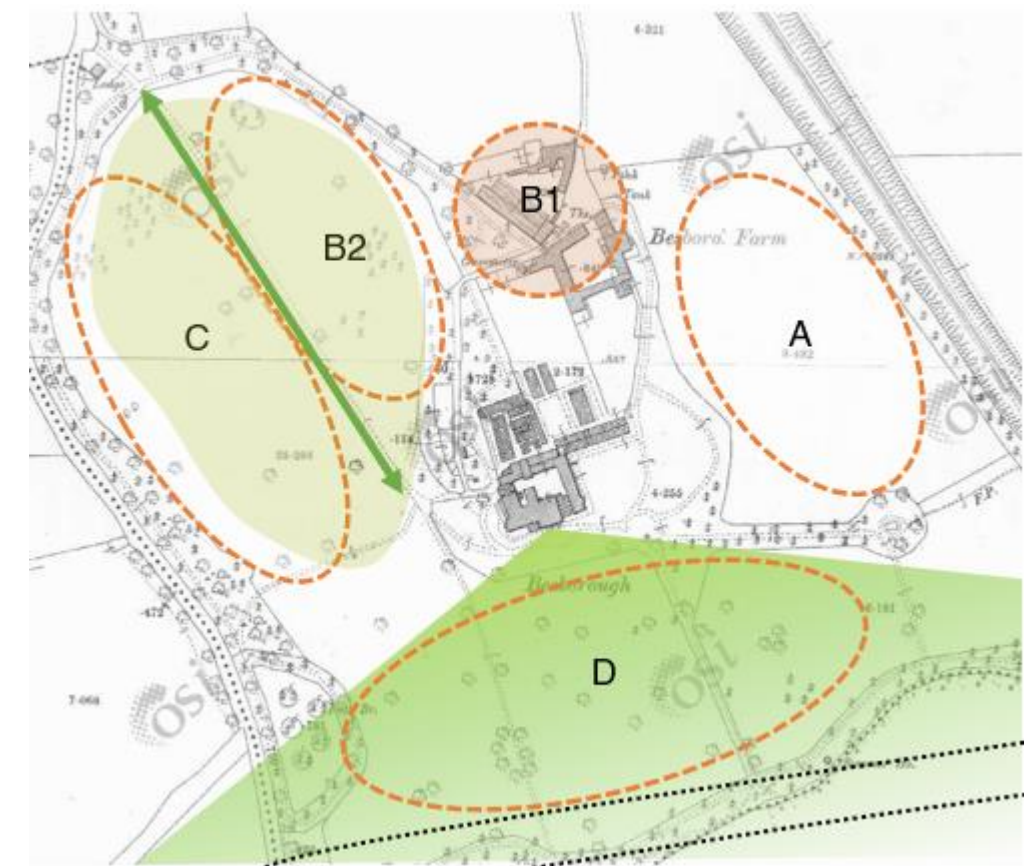
AREA B1 – The Farm complex has a well defined building arrangement and scale which is unique to the site. Any development in this location needs to support and enhance the original enclosure intent of the complex and retain the formed boundary to the Park to the West (AREA B2). An assessment of quality and significance of the buildings is needed to plan any intervention in this area .

AREA B2 - The is Area along with Area C formed the main open processional landscape to the main avenue from the gates to the main residence . While not open spatially anymore given planting in the late 20th century ,dissolving its intent , the area should remain as a perceived unbuilt area with care given to the recent Arbo setting .

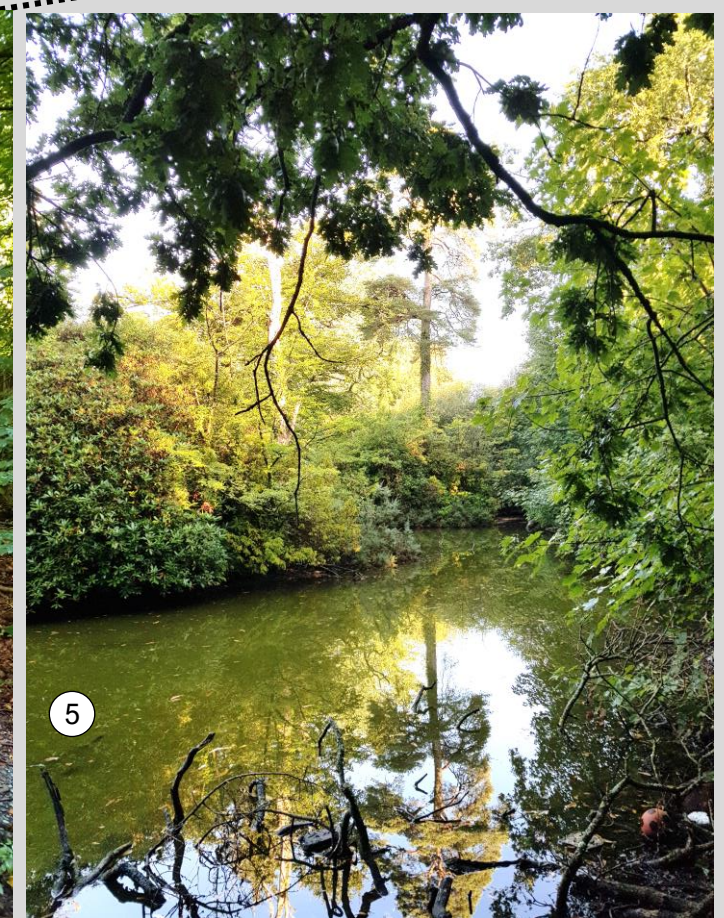
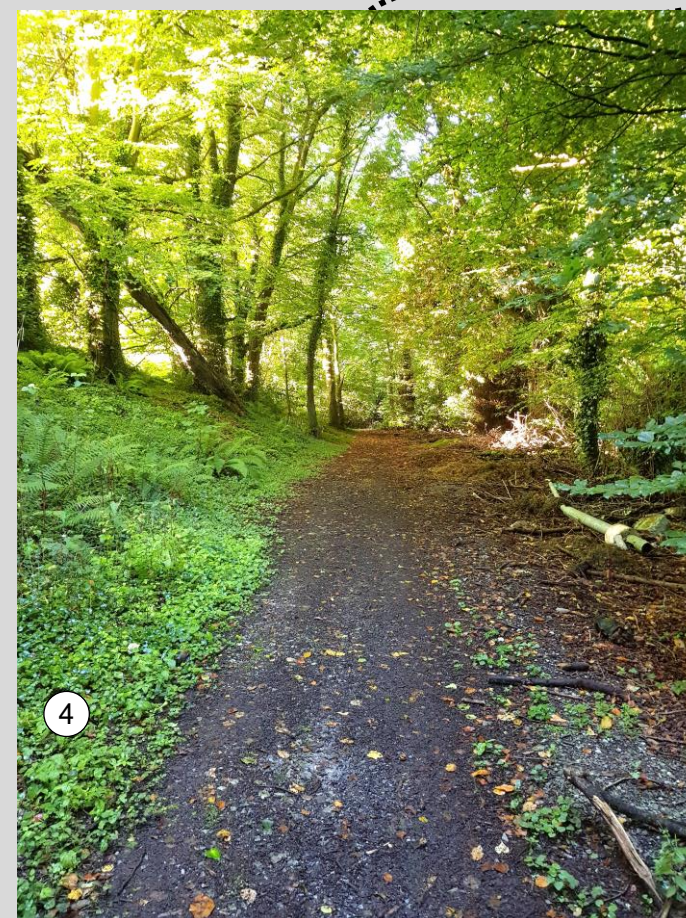
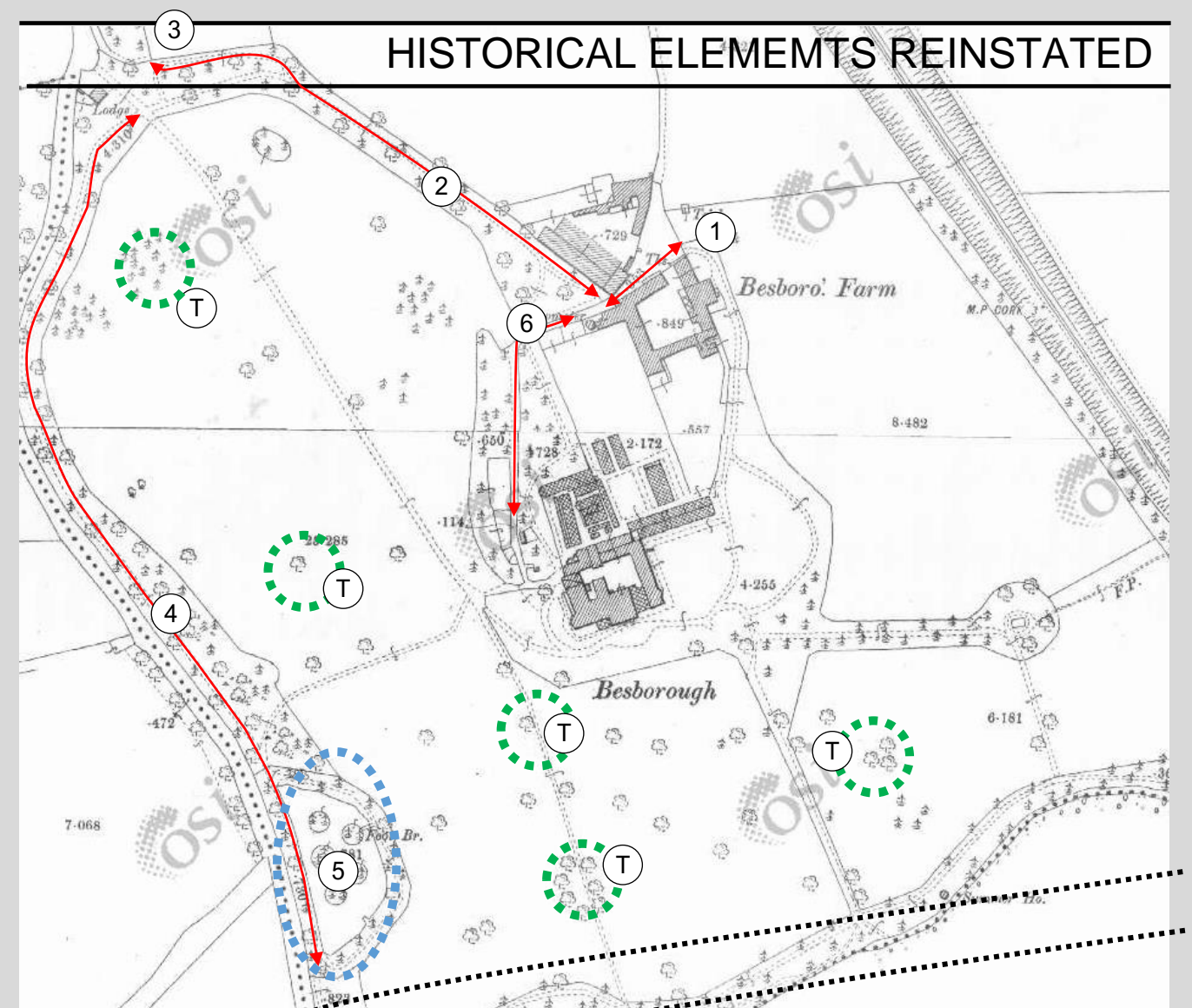
AREA C – Similarly this area should retain a sense of openness of the avenue , should be modest in scale and height as it is more exposed and legible than other areas suitable for development .

AREA D – The most sensitive area and not suitable for development forms the main open prospect from the main residence and conversely the residence is given an uninterrupted dominant presence in the landscape when viewed from the south .

HISTORICAL SPECIAL CHARACTER AREAS



1. (Phase 2) currently closed off access with block work wall restored to its original open east connection and dialogue
2. (Phase 2) Since lost perimeter park routes re-established with 1980's landscape interventions removed.
3. (Phase 2) previous access beyond estate walls re-established.
4. (Phase 3) 'Bishops walk ' restored and re-established and made publicly accessible.
5. (Phase 3) Pond area restored to former landscape feature status.
6. (Phase 2) Main routes connecting house to farm area re-established and given prominence.
- T. (Phase 3) broadleaf tree clusters re-instated. Indicative only on diagram



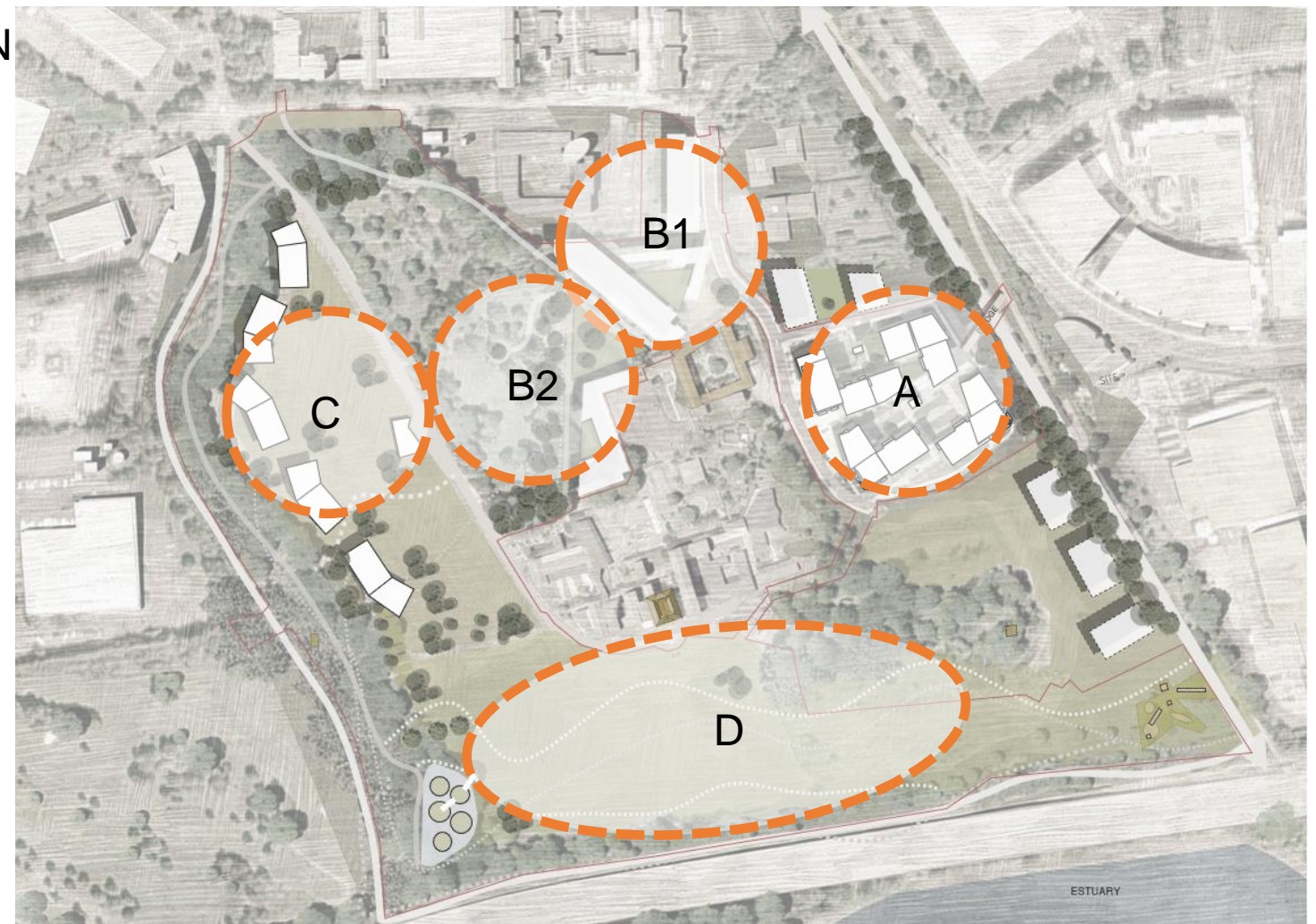
INDIVIDUAL CHARACTER AREAS OF THE MASTERPLAN

The design of any new development within the masterplan area addresses specific local constraints and opportunities to their specific area within the plan. This results in a number of different architectural approaches and typologies across the site which offers a diverse experience and improved placemaking and area identity opportunities. These areas are identified in 4 key areas as follows.

AREA A – The Meadows, is presented as a gateway to the site with a large feature public realm central spine connecting to the greenway to the east via a new bridge access. This location is considered suitable for a more dense typology given the topography and screening of Bessborough house to the west. Its scale reflects the gateway nature of the scheme to the masterplan while also being in close proximity to newer scaled development to the east in Mahon.

AREA B –The Farm, contains 2 area identities within it B1 & B2 ; B1 requiring consideration to the existing farm complex centrally and to the south while B2 responds to a landscape parkland setting with historic routes as generators – development is highly sensitive in this area given these proximities.

AREA C – The North Fields, has an open landscape feel with a mature woodland backdrop, development here retains an open ‘bordered’ landscape intent with a different parkland architectural expression applied.





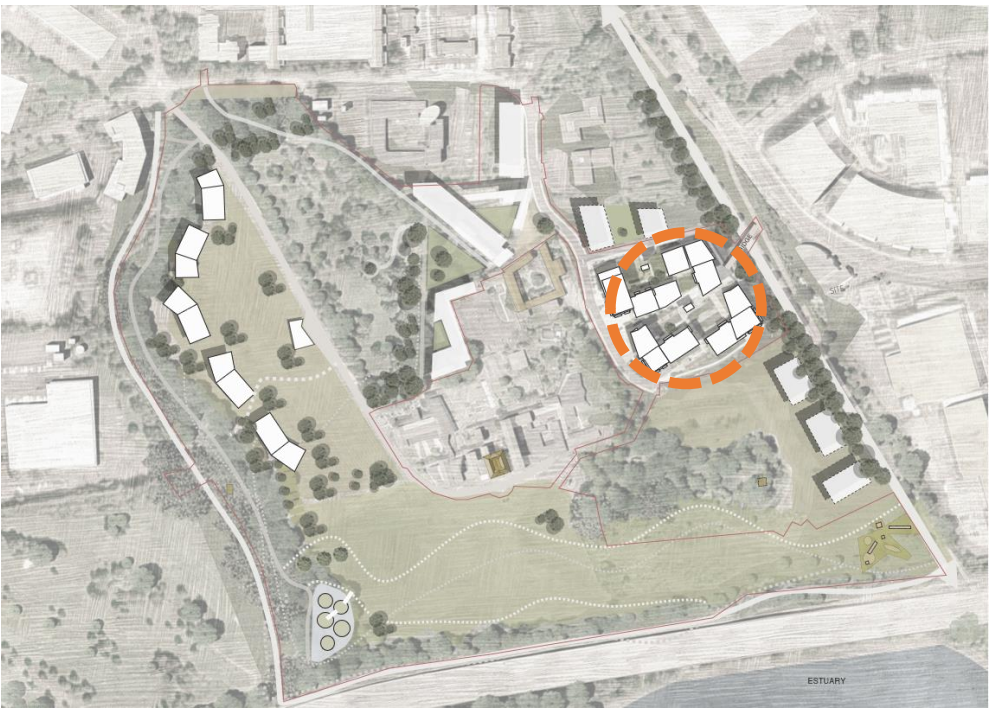
THE MEADOWS – PHASE 1

AREA A – THE MEADOWS

The Meadows is located to the north of residentially zoned lands which must be considered in assessment of height and distant views. It forms the main gateway to the masterplan with its proximity to the greenway. The site is further bounded to the north by zoned residential lands which transitions in scale to existing buildings further north. This area has significant tree stands to the south west which buffer sensitive views from the parkland to the south. It surrounds a major public realm spine leading to other permeable connection points to the wider site beyond.

Two strong historical geometries in proximity inform the urban approach with Bessborough House and the former rail-line creating a complimentary and angled relationship reflected in the plan form. A sequence of enclosures found in the main Bessborough estate building complex is also interpreted and reflected in the plan arrangement of public and private spaces.

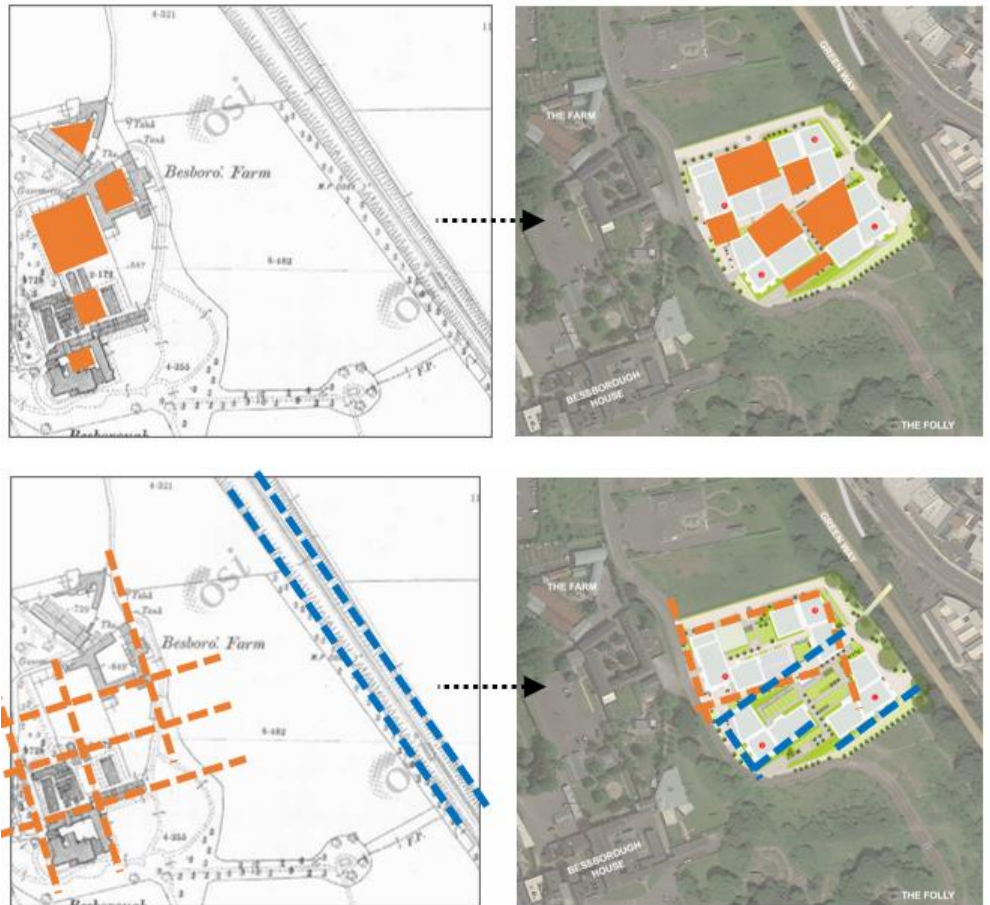
This site is proposed to have 280 residential units with a creche and supporting facilities.



Greenway section looking west



Distant view from South



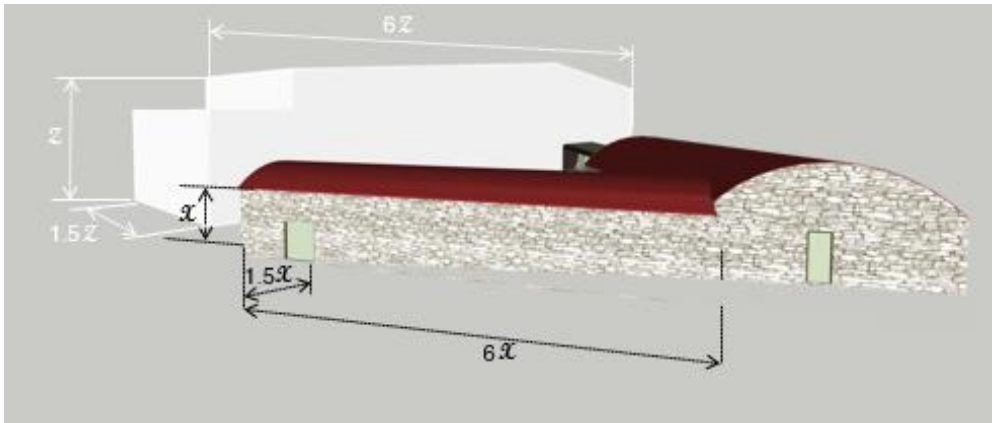
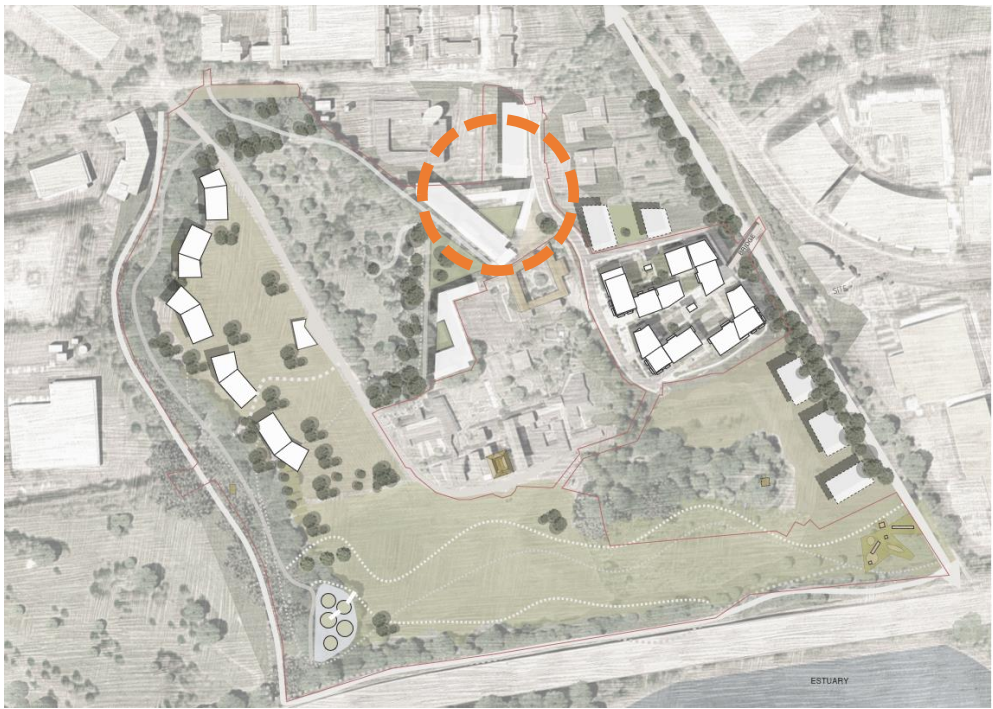


THE FARM – PHASE 2

AREA B1 – THE FARM

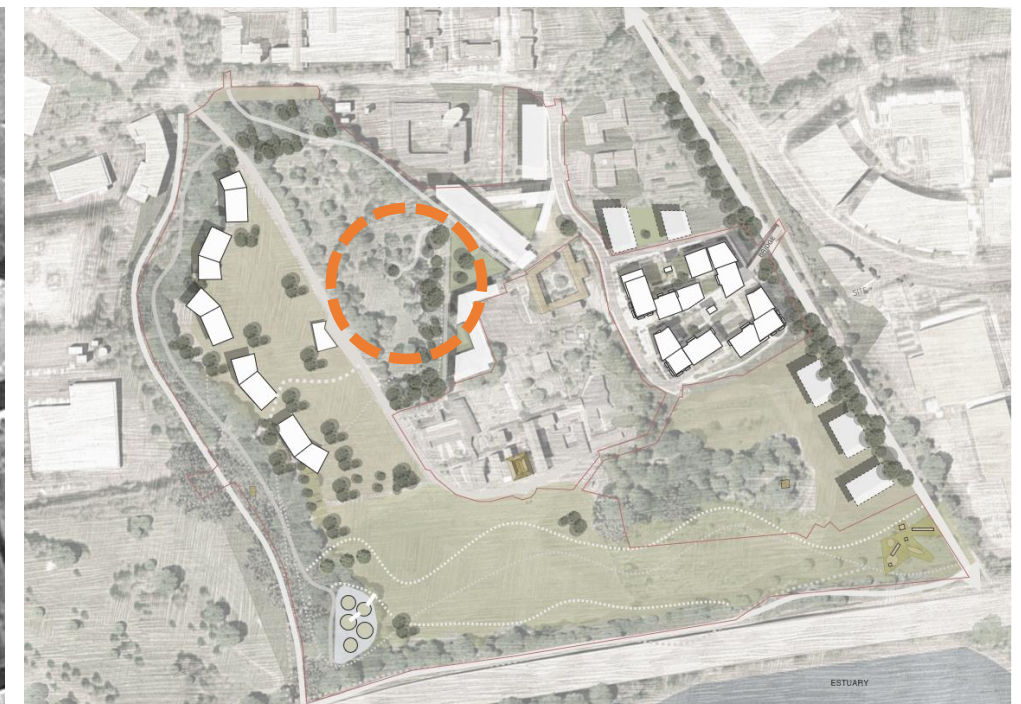
The Farm area occupies the part of the former farm complex of buildings to Bessborough House. It is in close proximity to the NIAH listed farm buildings to the south. A conservation assessment of the buildings on site identified a number buildings to be retained but critically the geometry and boundary nature of the site with the park to the west would need to be maintained. In consultation with Cork City Conservation officer the below right strategy was agreed with new buildings forming this edge to the park (building D). Expressions of the architecture of the building are linear and long in nature to reflect the proportional and unique character of the retained structures on site. Materiality is also derived from the retained farm buildings with feature corrugated metal used extensively. The area is opened up to re establish open connections to the east with access provided to the park area and building C beyond.

This site is proposed to have 140 residential units in total combined with building C in the park, with a creche and supporting facilities.



AREA B2 – THE PARK

The Park area to the North of Bessborough House while originally intended to be an open demesne setting was extensively planted in the 1980s dramatically changing the landscape intent. Still remaining though dissolved is an axial route from the house to the farm. The proposed new development takes this route as a primary generator and forms a boundary to the now treed open space to the north and west. Development is low scale at 3 storeys and addresses the rear former walled garden area with an modest mansard roof expression. Both buildings C and D offer significant supervision to the new public park to their west.



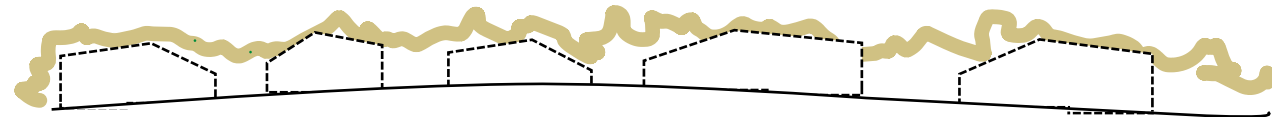


THE NORTH FIELDS – PHASE 3

AREA C – THE NORTH FIELDS

The North Fields area is currently in rolling meadow with a mature tree stands to the west boundary. Development here is design to be low scale (equal to or below tree height) and form an edge to an open space landscape off the main avenue per original historical intent. The architectural expression is organic in plan form, elevation and site arrangement to play on the original tree line boundary. Servicing is to the rear offering the buildings face directly to the parkland to their east. This parkland along with the bishops walk to the rear are to be made publicly accessible. An indicative location for the National Memorial and Record Centre is offered midway off the avenue. This location offers a unique opportunity to create a new community in a parkland setting.

Area D is preliminary in nature and is designed to accommodate a maximum of 200 residential units and services . It is subject to future detailed engagement with Cork City Council on design proposals .

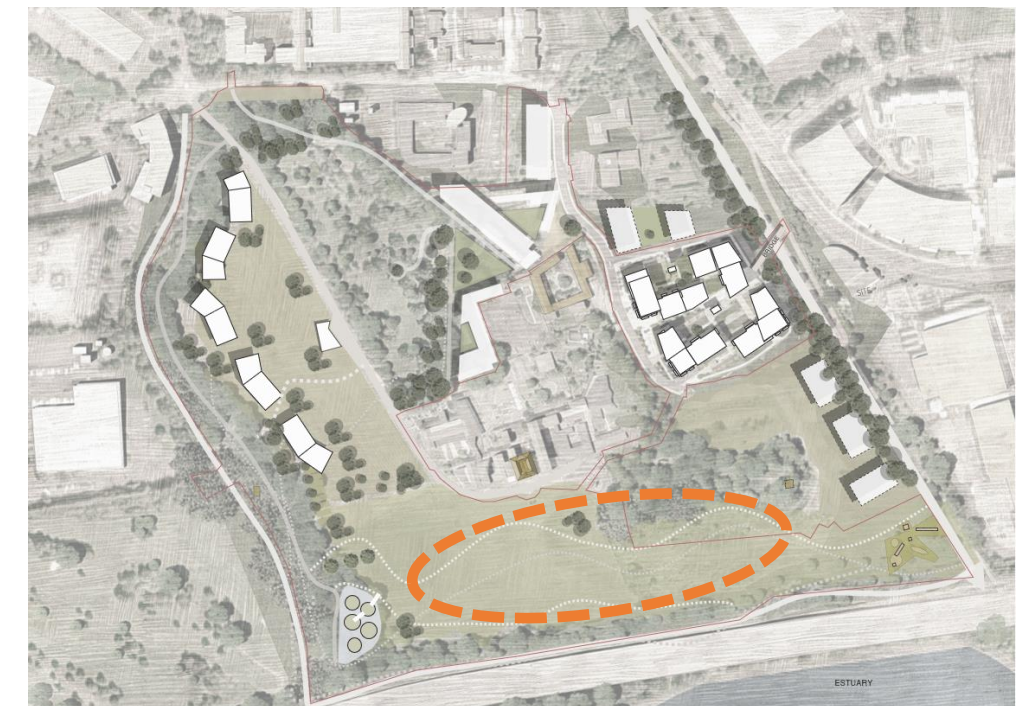




REMEMBRANCE PARK – PHASE 3

AREA D – THE REMEMBRANCE PARK (NEIGHBOURHOOD PARK)

The Remembrance Park incorporates the southern prospect of Bessborough House which forms its centre piece. It is intended to be a wide expansive green open space for public use. Given the size at 12.5 acres it has the possibility to be laid out with a number of amenity areas within to address remembrance of all stakeholders of the Bessborough Mother and Baby home legacy. Certain historical aspects of landscape and route restoration are envisaged as part of this areas overall masterplan. Opportunities exist for circulation routes to be setup to take in key features of this area, with the potential of destination play areas to the east while the calmer more reflective space at the historic pond area to the south west. The park links the eastern greenway and the western green way and combined with a highly permeable masterplan, circular amenity routes are made available to the public. It is intended at phase 3 stage to cede this land to the city and relevant stakeholders for full implementation to their needs.





A Parkland to Remember – What a Remembrance Park can look like



A Memorial space – How other cities approach memorials - international best practice.

A recognised best practice approach on memorials is to put the key memorial stakeholders at the centre of procurement process. Workshops with interest groups, public consultations and a democratic approach yields the optimum outcome for all. All key players need to come together and work to facilitate the goal of the remembrance at hand. Key elements such as design can play a significant role in delivering a shared vision of international quality. We present some other successful Memorial interventions that represent best practice in creating powerful Memorials to tragic pasts internationally.



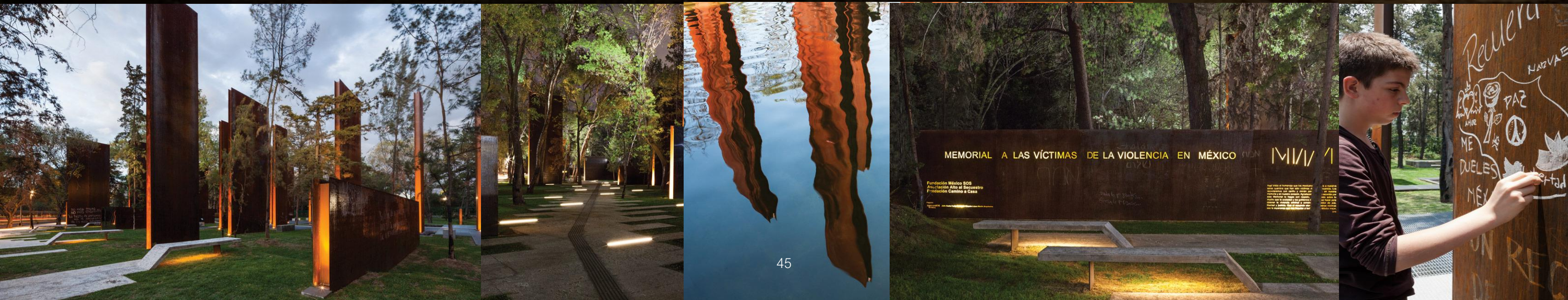
WES Landscape Architecture: On the site of the concentration camp Esterwegen, built in 1933, a memorial was set up in memory of all fifteen camps in the Ems region and their victims. None of the above-ground construction elements were still standing. For this reason, "tree parcels", with the dimensions of the former barracks were cut out of the red oaks planted in the fifties. A contrast to this almost park-like scenario is formed by the gravel covering of the entire area that once housed the prisoners, the bulky silhouettes like paper cuttings, high walls made of Corten steel, an interpretation of the watchtowers, the course of the wall and the gates. A place for "active" recollection has developed, which encourages the visitors to allow the history and the topography of violence, threat and destruction to evolve in their imagination, while also relating this to the present.

Esterwegen Memorial Site Esterwegen Germany





Memorial to Victims of Violence – Mexico City





By OMGEVING Architects :
The Bluff in the notorious 'Ypres Salient' is a unique wartime landscape that survives from the First World War. The site was the scene of widespread feverish digging of underground passages and shafts, mine explosions, sabotage and attempts at eavesdropping. In the context of the cultural tourism project, 'Remembrance Park 14-18', subtle measures in and around the site have been taken to improve access for visitors and so that visitors can see what the unique landscape framework in which the fighting took place looked like.

The Bluff Memorial -Ypres Belgium



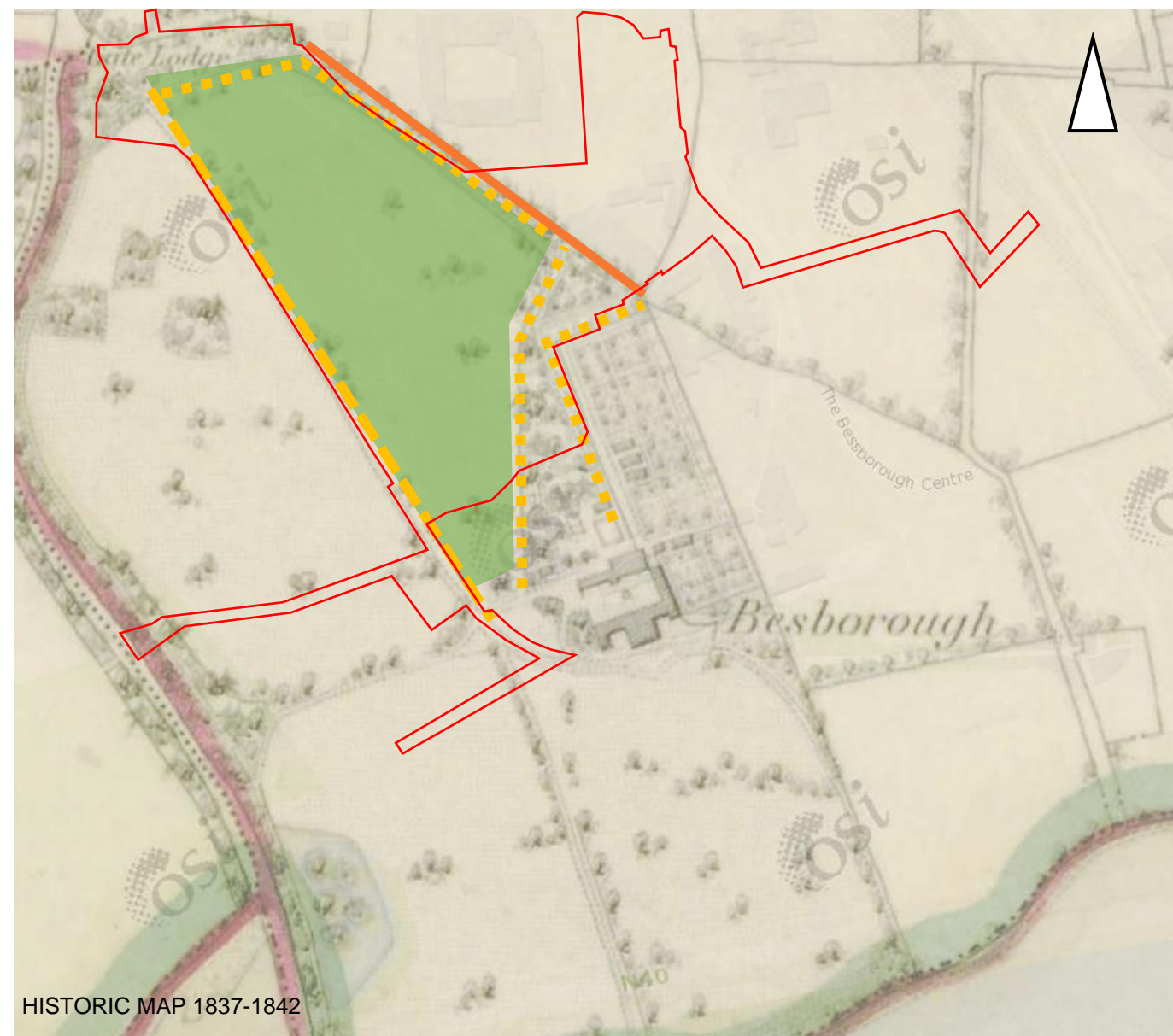
Play - a new generation – destination play area



Bessborough presents a unique opportunity to have a new space for children, for children to be the focus in a new and positive way – a new generation while acknowledging the past. The remembrance park has the potential to create innovative & child centred spaces of play and exploration. Already on site is an award winning Creche facility ushering in a new generation of child focused care. We feel new play areas with children's voices in laughter and play in this place would hold deep resonance coupled with the remembrance theme at its core. A Highly accessible location off the main eastern green way is located to the south east of the remembrance park.



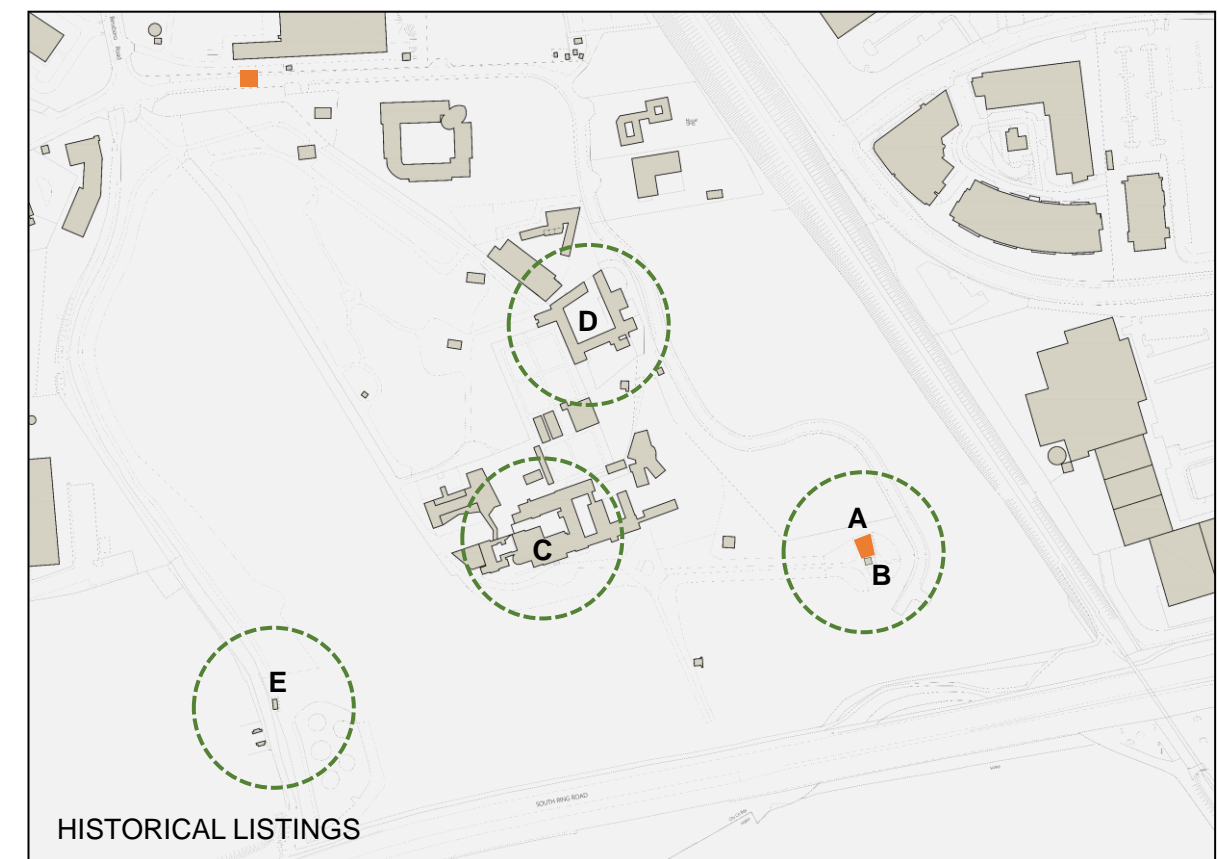
Application Site analysis



The above map shows the original Pike family home and estate stretching to over 200 acres. The map captures the main home structure with later additions of stables, farm and the folly to arrive later (see Historical listings) .

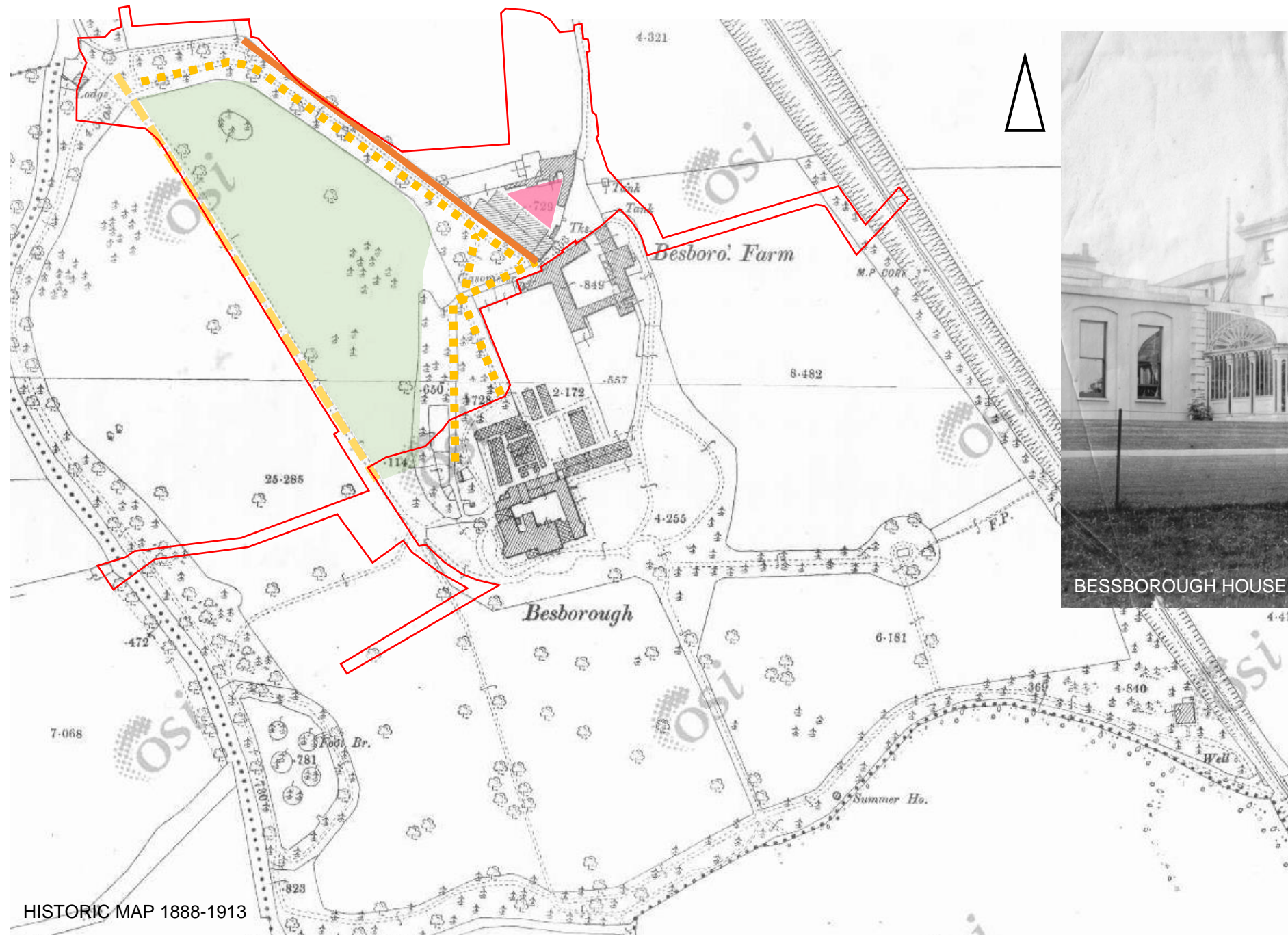
Relevant to the application site the following sequence of maps (1837-2018) tracks the retention & alteration of historical open space and historical routes from pathways to main avenues north of the House. These aspects to the evolution of the site form the strategy for the new buildings placement, alignment, masterplan, circulation and amenity to the proposal.

The Green Hatch area which is tracked in the map sequence shows the original conceived open amenity space formed by 3 boundaries (yellow); the avenue to the west, pathway to the north with a walled boundary (orange) and further pathway border to the east. This oldest record in mapping establishes the original hierarchy of open spaces and circulation which forms the core response generator for the proposal & masterplans integration.



- A Cemetery
- B Folly (NIAH 20872007)
- C Besborough House (PS 490)
- D Farmyard & Stables NIAH (Reg. no. 20872006)
- E Ice House (RMP no. CO074-051)

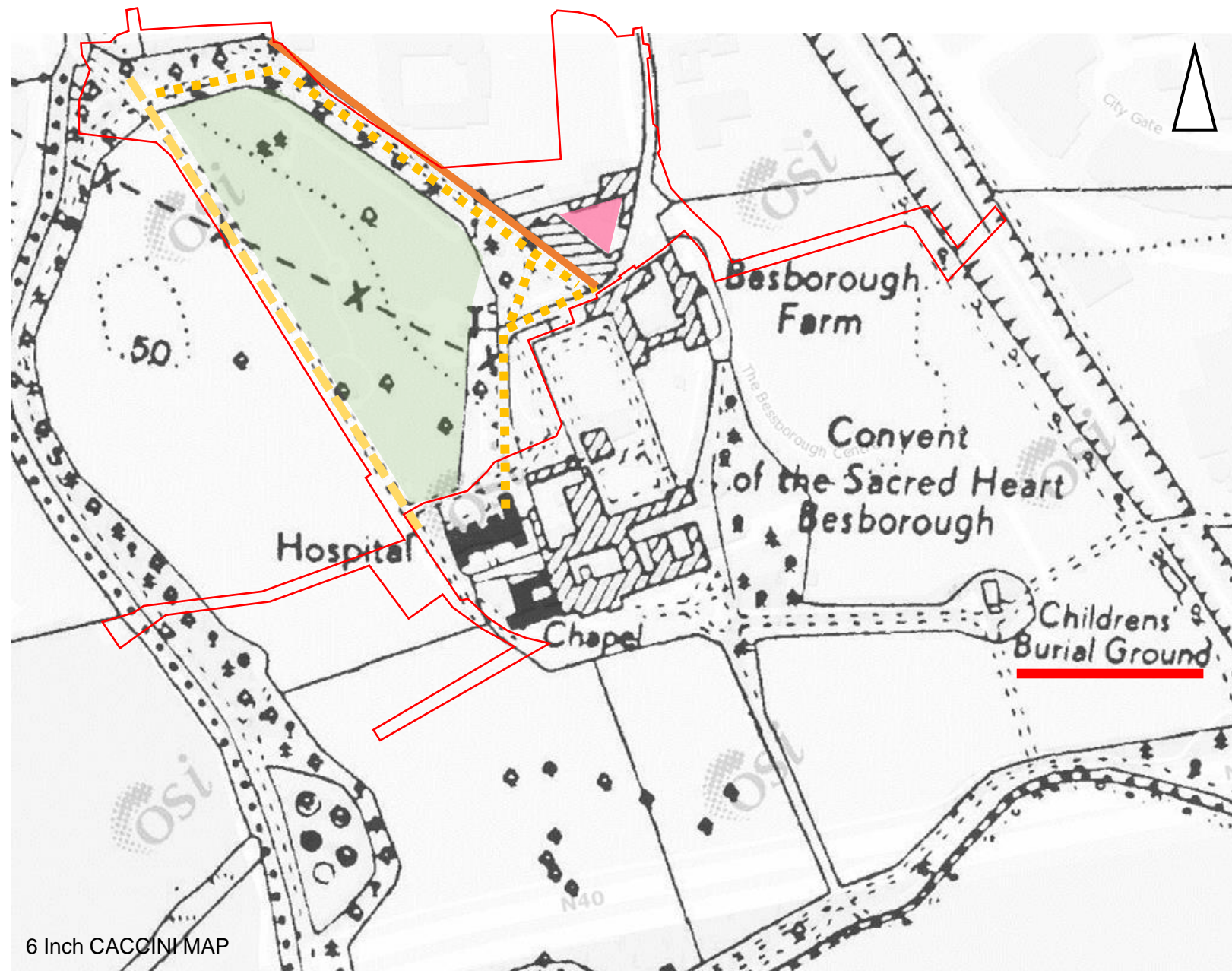
HISTORICAL



The above map shows the development of the site from the late 19th century. The Pike Family home is extended to the north and east. The site traditionally appears to have extended northwards with the high value southern prospect remaining open throughout the development sequence. The Folly to the east is also added at this point. The rail line to city-Passage West appears (currently as greenway) at this point with the private Pike family train stop in the south eastern most corner.

The perimeter routes in yellow largely remain intact with planting appearing to the west of the path from the main house. Consequently the green open space is modestly reduced in area. The Farm buildings are rigorously set up to flank the boundary to the north east (orange). The characterful & asymmetric geometry of the stables area to south of the application boundary and also the adjoining farm area triangular arrangement (pink) also present at this point in time.

HISTORICAL



The above Cassini map shows further modification to the north and west of the family home (black). The map clearly identifies the extent of open space, pathways and boundaries associated with the application site.

At this point the map identifies the 'Convent of the Sacred Heart' as the order takes over the estate with a hospital element to the west of note is the text saying 'Children's Burial Ground' to the south east of the Folly (red).

HISTORICAL



BESSBOROUGH MOTHER AND BABY HOME 1922- 1999

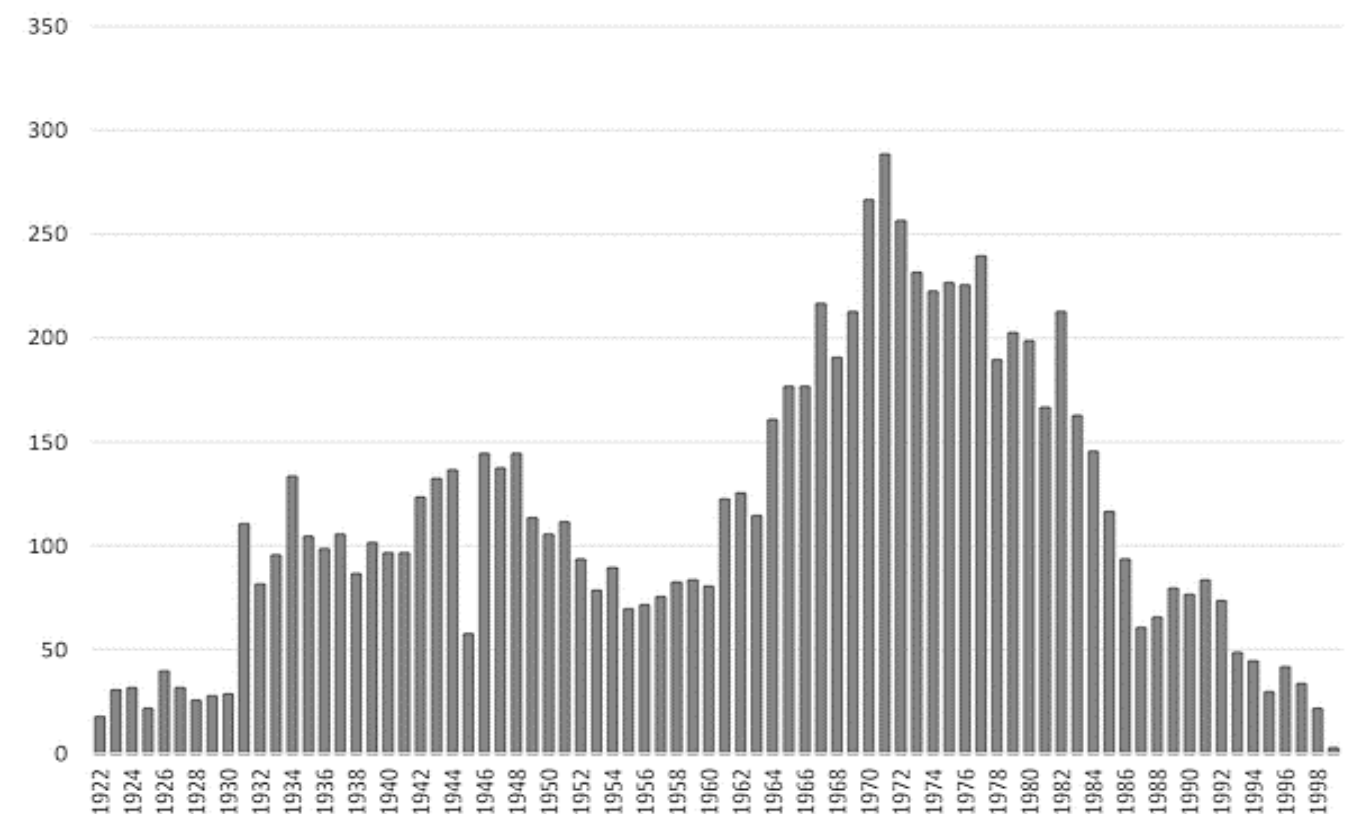
Bessborough Mother and Baby Home on Bessborough Rd, Blackrock, was opened in 1922 and operated until 1999. During those 77 years, 9,768 mothers entered the home and 8,938 children were born or reared there. Of these children, 923 died. The burial place of a large number of babies who died at the home remains unaccounted for and a source of huge concern and pain for survivors and their families.

Bessborough was owned and run by the congregation of the Sacred Hearts of Jesus and Mary and was regarded as one of the first 'special' institutions for unmarried mothers and their children.

The Mother and Baby Homes Commission of Investigation (officially the Commission of Investigation into Mother and Baby Homes and certain related matters) was a judicial commission of investigation, established in 2015 by the Government to investigate mother and baby homes.

The Mother and Baby Homes Commission of Investigation submitted its final report to the Minister for Children, Equality, Disability, Integration and Youth on 30 October 2020. The report was published on 12 January 2021

Babies admitted per year at Bessborough mother and baby home



Originally scheduled to issue its final report by February 2018, the Commission was granted a series of extensions. In January 2021, the final report detailed that approximately 9,000 children, one in seven of those born in the 18 institutions covered by the Commission's terms of reference, had died in them between 1922 and 1998, double the rate of infant mortality in the general population. The final report was published on 12 January. On 13 January 2021, Taoiseach Micheál Martin made a formal apology to survivors on behalf of the state. The Commission was subsequently dissolved on 28 February 2021. Today the location of the burials remains unidentified and a source of huge pain and concern for Survivor groups and their families .



HISTORICAL



HISTORIC ARIEL PHOTOGRAPH 1956

The above aerial photograph shows the lands with key elements still intact. This photograph is critical in assessing the most recent documented presentation of the parkland area (green) as being presented as an open unplanted area bar isolated feature trees. At this point also of note, the paths and boundary's large remain reflective of the earliest recordings of the site. Consistently the farm boundary rigour remains intact as is present in todays site.

The site today has the large open area planted (c.1980s) and while the arboriculture environment now maturing presents as a pleasant environment, it is contrary to the original landscape intent of openness as conceived in the earliest plans for the estate .



HISTORICAL



HISTORIC ARIEL PHOTOGRAPH 1995

The above aerial photograph shows the extent and impact of the landscape interventions c.1980.s .The pathways and routes hierarchy have been altered significantly and added to in number dramatically. Early new planting is apparent in the open space area again conflicting with original landscape intent. Feature areas and folly's/gazebos are introduced into the open area. These pathway interventions are reversed and reinstated to historic routes in the proposal.The remaining wider site remains largely rural and undeveloped. Significantly the Main N40 roadway to the South now severs a portion of the prospect lands .



(DETAIL PARKLAND) HISTORIC ARIEL PHOTOGRAPH 1995

HISTORICAL



HISTORIC ARIEL PHOTOGRAPH c.2005

The above aerial photograph shows the extent the wider site was impacted when it went through a significant development phase of commercial building. Within the site the creche to the east of Bessborough House is completed. Development of the HSE buildings to North East of the application site is evidenced .

The recent planting of the open space within the site is starting to become established.

HISTORICAL



ARIEL PHOTOGRAPH c.2018

The above aerial photograph shows the extent of extensive development the wider site continued to go through which include further commercial buildings, retail and residential areas beyond the site. The new convent is now built to the North of the application boundary and more recently the main Bessborough Centre is taken over by the HSE. Many of the farm buildings fall into dereliction. The former open space now has a semi mature Arbo setting with a significant variety of native and non native tree specimens on site today.

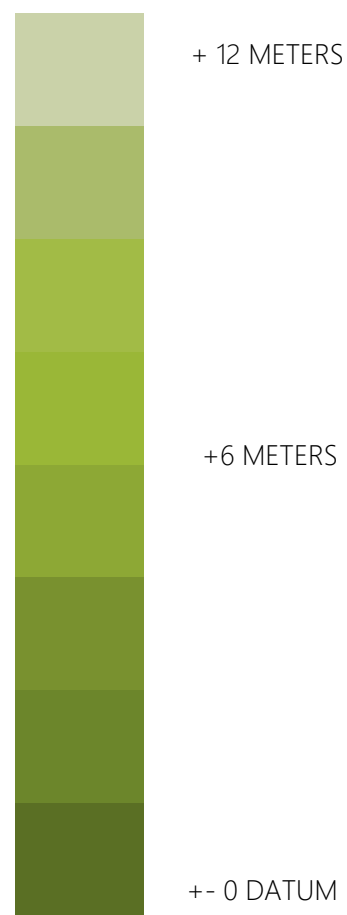
HISTORICAL



SITE PLAN RESPONSE

In the Parkland area, the site plan aspires to reconnect and reverse order the hierarchy of paths to the original perimeter intention. Retained and established historical routes are supported and reused with their geometry setting up the principle generator for the insertions orientation and configuration. A new connection (white arrow) is added to the arrangement which is a natural continuation and allows the site to have improved permeability and connectivity. The original open space area, though now planted, is retained and left into meadow / grassland with obtrusive more recent pathways removed. The Arbo setting is well retained with approximately 10% of mixed quality trees to be removed. The Farm area has a mixture of retained and demolition strategy with high order buildings retained. The formal boundary between farm and park is supported by a new linear building with eccentric triangular yard enclosure retained. A northern building creates definition and edge to the streetscape. Of note, the privately held parkland is given public access and adds significant amenity to the wider community.




HISTORICAL



CONTOURS

The topography on the site is significant to the interpretation of the masterplan, with Bessborough House occupying an elevated prominent location central to the site. The lands to the south and west have significant level change offering and opportunity for any interventions to be respectful in prominence while still achieving a sustainable community population within the site. Lands to the east and south while more elevated, benefit from mature tree stand locations to minimise any visual impacts on the existing built heritage with high canopy cover.

PHYSICAL

-  MATURE SPECIMENS BROAD LEAF & MIX
-  BROAD LEAF AVENUE PLANTING
-  RECENT (c.2000) MIX ,SAPLING ,BROADLEAF & HEDGEROW LATER PLANTING

1995 AERIAL PHOTOGRAPH



ARBORICULTURE

A preliminary assessment of the arboricultural value to the specimen variety across the site has been conducted and is referenced in the Historic by Arbo Care as part of the submission. Large tree stands form significant features across the wider landscape and provide for a high quality environment. The masterplan acknowledges this high quality asset to this location and uses this feature to offer an enhanced parkland setting for the community in the proposal, offering significant areas of private land to be accessed by the public.

PHYSICAL



ARBORICULTURE

TREE MANAGEMENT IN THE PARK

The existing park at Bessborough contains in excess of 350 trees comprising a wide variety of indigenous and non native trees.

The extent of development within the park has reduced significantly since the S247 Meeting and the proposed development is now concentrated in the area immediately to the north of Bessborough House.

The Design Team have positioned buildings carefully in order to reduce the impact on existing mature trees in this area.

The current design impacts on 51 No trees within the site and a further 3 existing trees are impacted by the pedestrian bridge on the Passage West Greenway.

Analysis of the total 54 No. trees lost include:

40 No. Non

Native tress

14 No. Native trees

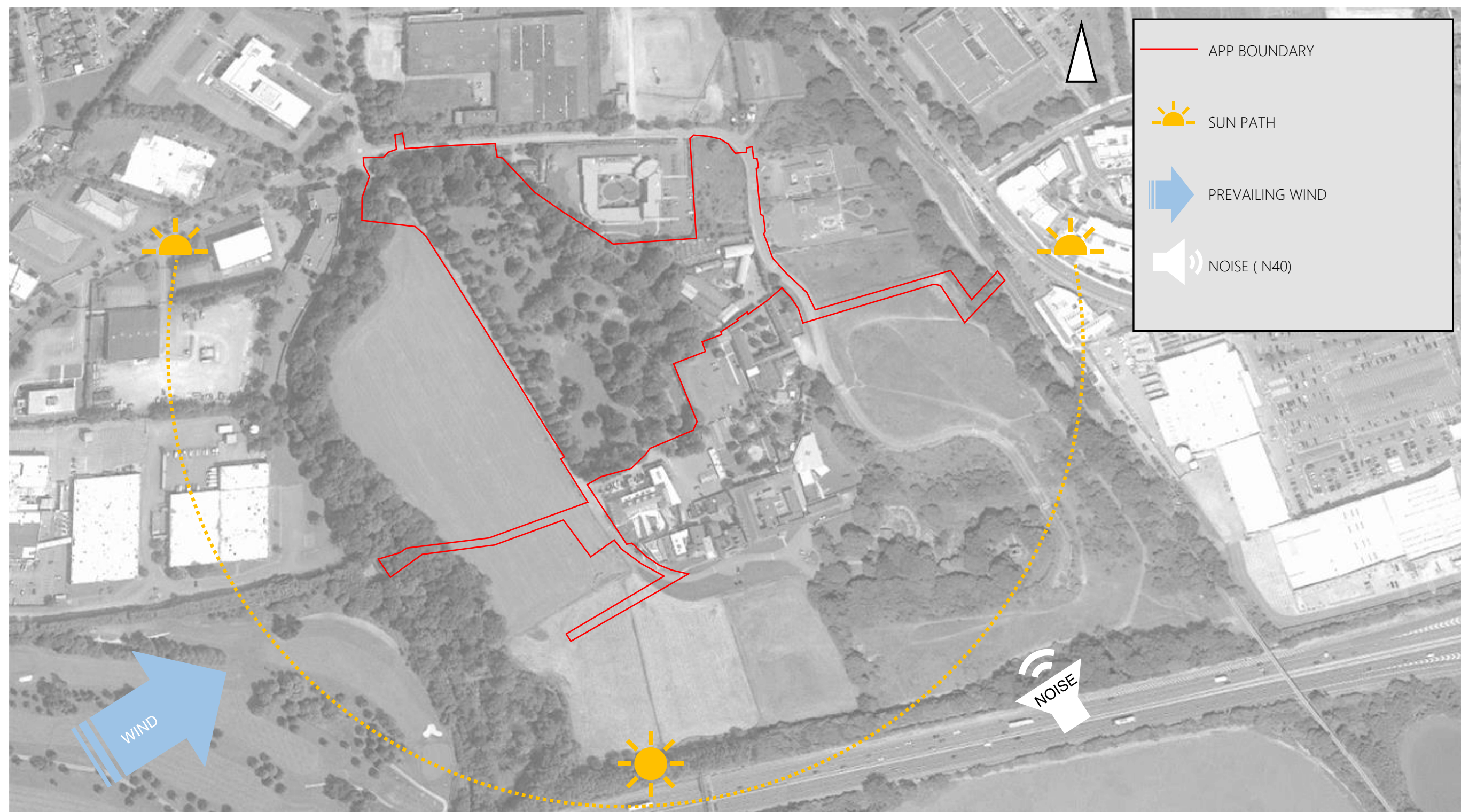
(9 No. Category A and 29 No. Category B and 13 No. Category C).

A further 10 No Category U trees are recommended by the Arboriculturist for removal. Removal of these trees will protect existing high value trees from disease and make room for the introduction of new appropriate trees in line with proper parkland management. Dead trees may be retained as habitat if these are not seen as a threat to the public.

A Parkland Management Strategy is recommended to ensure that the condition of trees is surveyed on an ongoing basis and that the health of Ash and Elm trees are monitored.

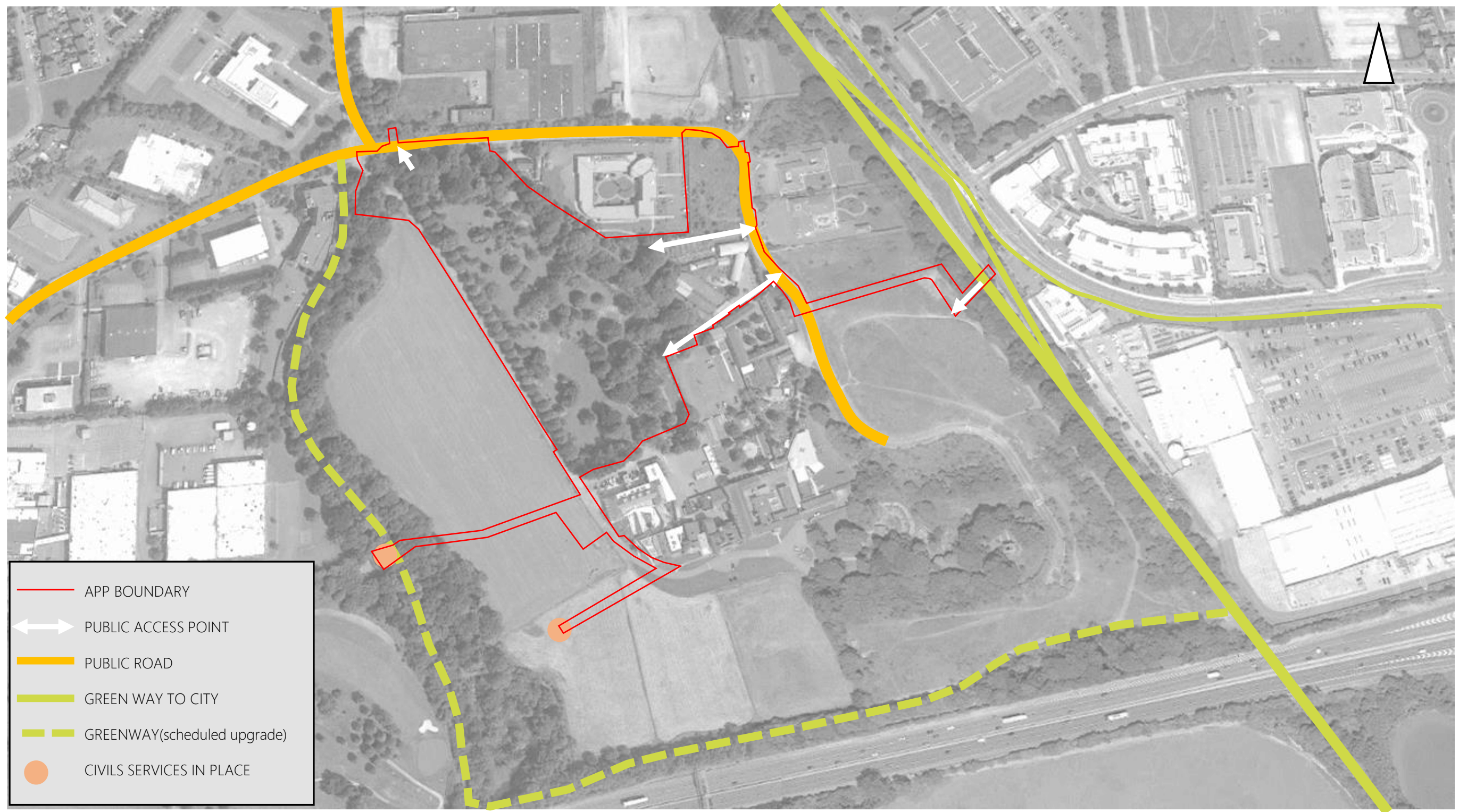
New tree planting should be sensitive to the historic landscape and should be selected from appropriate native species. Native wildflowers and meadow grasses should be introduced to create a more natural, ecologically biodiverse landscape with recommendations from ecologists, NPWS, THE Native

PHYSICAL



ENVIRONMENTAL CONDITIONS

ENVIRONMENTAL



AVAILABLE INFRASTRUCTURE

The site is served from the east and north by public roadways of adequate standard for the proposal as outlined in traffic reports. Greenway connectivity is provided to the north west of the site which connects to the main City greenway to the east of the site. The site is fully serviced to the south for foul and storm systems.

INFRASTRUCTURE



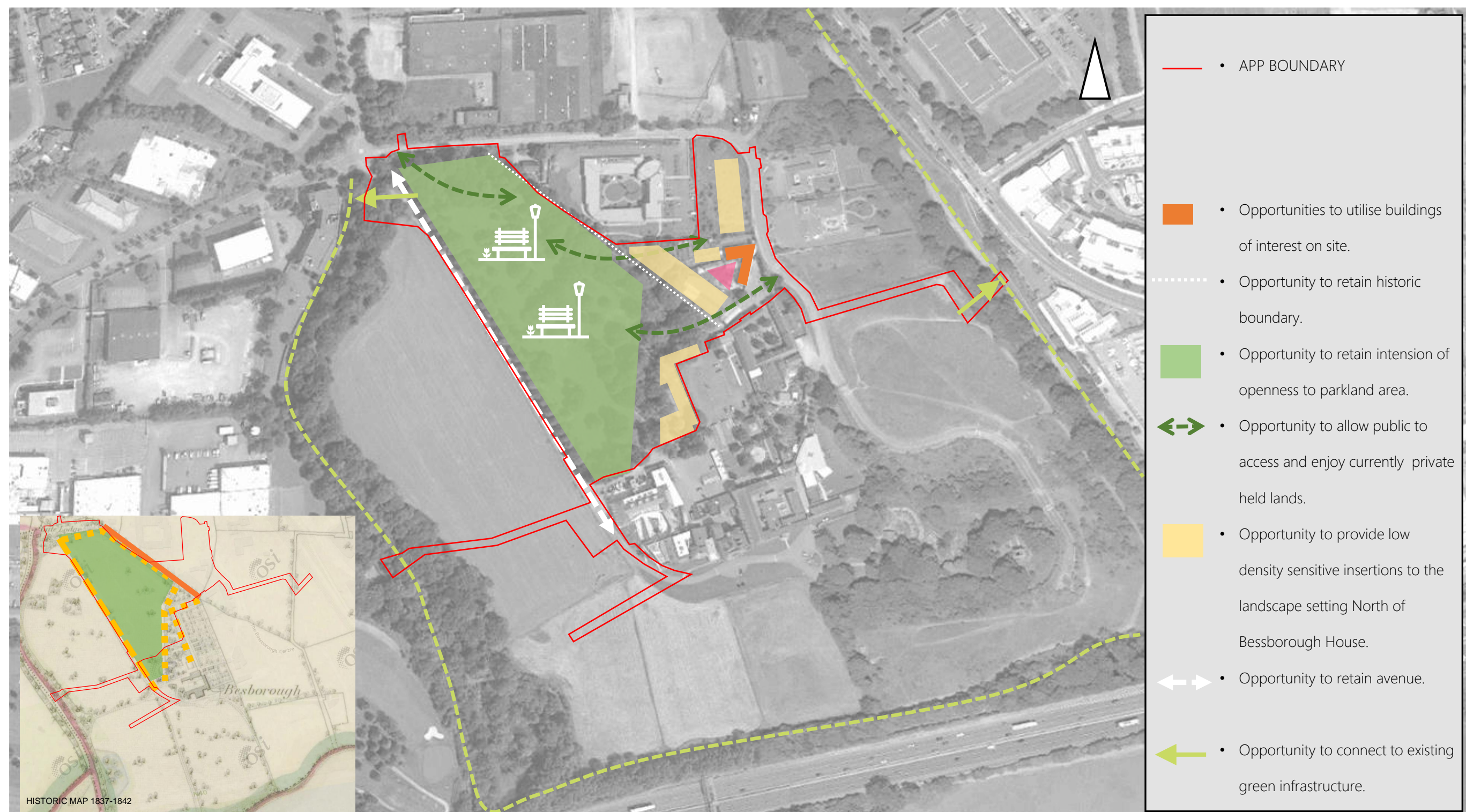
LAND USE



CONSTRAINTS

Significant tree planting is currently within the former open space, while a case could be made for the re-instatement of the open setting, the design team has treated the Arbo setting as constraint and taken a restrained approach to any tree removals in the main park to the north and placing building C in a formerly unplanted area. Strong historic boundary alignments of the avenues north eastern boundary need to be respected and enhanced in proposals. With regard to built heritage of the site, a careful audit of the importance of the setting and important built forms need assessing and valuing before intervention /repurposing or demolition . Scale needs considering carefully given nearby heritage structures and residential buildings .

CONSTRAINTS & OPPORTUNITIES



OPPORTUNITIES

Key opportunities allow for the restoration of routes across the site, offering the parkland area as accessible to the public amenity while offering supervision and use by future residents. The wider site can be made more porous and permeable to facilitate active spaces while respecting established boundaries built and landscaped. Connectivity from the site can be provided to existing greenway infrastructure creating a sustainable location. Farm area Heritage elements can be restored and repurposed with former spatial arrangements retained and the enclosures of the forms arrangements retained and enhanced.

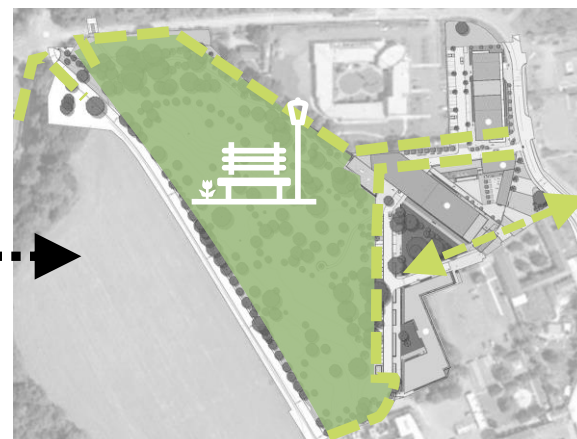
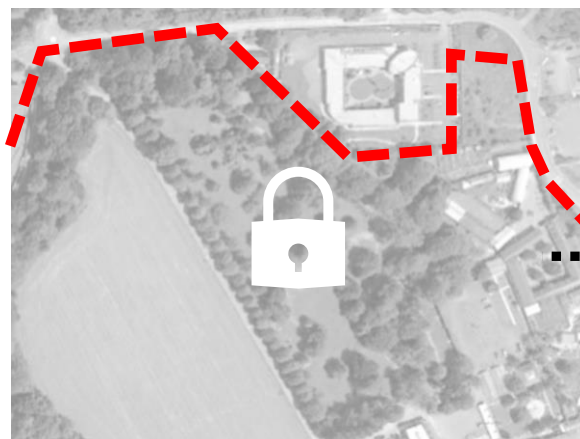
CONSTRAINTS & OPPORTUNITIES

Design Response

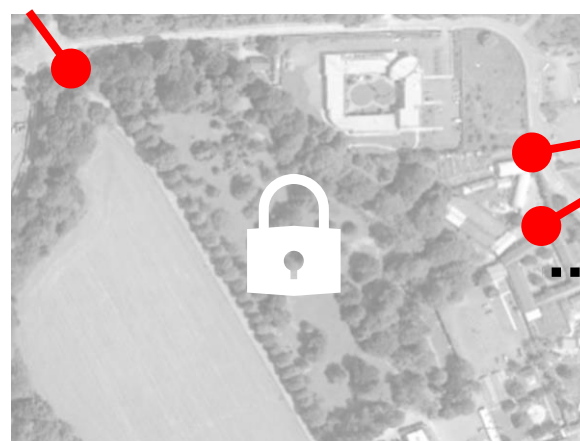




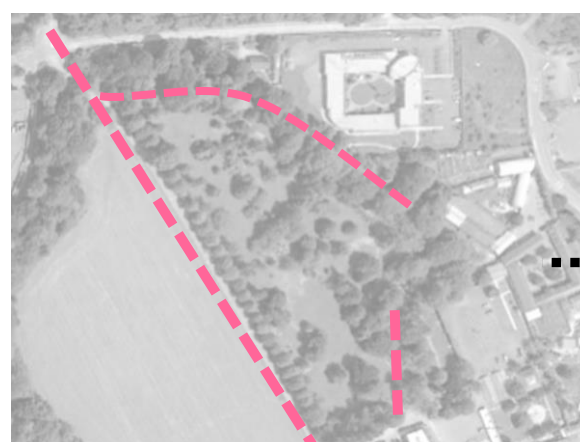
The proposal recognises the former open space area in it conceived layout approach , reinstates and supports historic routes to the parkland area .



The proposal allows for a significant amenity use to the public from what is currently a secure privately held holding.



New Permeability from the North, East & South are provided for to facilitate this.



Historic routes and desire lines are re-established and renewed with later re-ordering reversed. Existing routes are further supported by the addition of modest extensions.

MASTERPLAN APPROACH

12 Principles of Urban Design

THE 12 PRINCIPLES OF QUALITY URBAN DESIGN

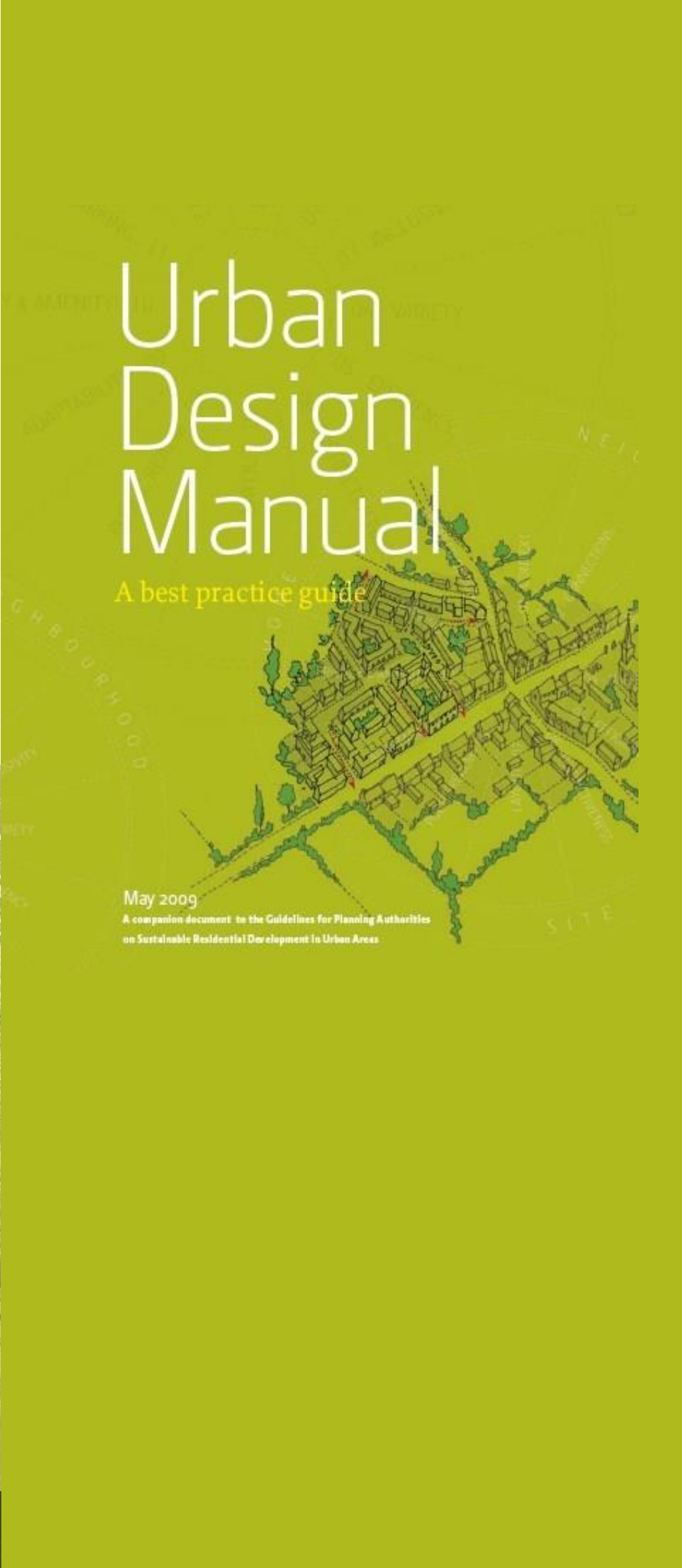
From inception the design has been considered in its response to sustainable placemaking, with the 12 key principles of design (Urban Design Manual 2009) as central generators for the proposal. The 12 key criteria are briefly set out below :

CONTEXT

The proposed has been carefully considered at a macro and micro level given the sensitive landscape and heritage context it is placed within. By careful sectional and visual analysis of the surrounding scale and urban grain, the development is conceived to respond to 2 key areas identified; The Farm Area and the Parkland setting. Through careful historical analysis the estate has evolved over its history to accommodate expansions that respond to a series of generators, from practical generators such as desire lines for support buildings to more formal axes relating to the hierarchy of the main house. The design responds by further sensitively extrapolating these routes and geometries to support and maintain the orderly evolution of the site into the future. The various buildings alignments are generated from core heritage placemaking evident today on site and through the interventions design allows a retained understanding of the sites historic arrangement. Scale and mass are conceived to minimise impacts on existing valued heritage buildings and not break above retained mature tree heights, except to the north east where a new street edge is created with setbacks. The development retains and enhances the landscape setting by opening large portions of parkland to public access and by its sensitive placing offers supervision to parkland setting currently unavailable as an amenity for the wider community .



New Parkland for public use



CONNECTIONS

The new residents benefit from a clear road network to the edge of the boundary, with greenway connections to the east and north west (scheduled for upgrade by City). The site benefits from planned CMATS bus links and a nearby (5 minute –walk) CMATS light rail station. The scheme has been designed to maximise this connectivity by linkages to existing greenway infrastructure, notably 'The Line' Greenway to the west. Residents have available retail offerings in walking distance of Mahon Point while the city centre is a 10 minute cycle away for employment, retail and cultural offerings .



INCLUSIVITY

The sites topography has a modest level differential for its scale and thus allows for simple access for all arrangements to be provided for throughout. Clear routes and zones are established for users, be they public or residents. A sequence of active amenity spaces for residents are created within the development ; from calm parkland areas for residents to enjoy quieter spaces, to more active communal amenity spaces and bar-b-q roof terraces. A play area is also provided that is publicly accessible. All amenity spaces are well supervised and are connected with highly visibly walkways .



PUBLIC ROUTES ARE CREATED TO BE INVITING AND OF INTERST AND ACCESSIBLE TO ALL



FARM GIRL MEMORIAL AREA – PARK AREA



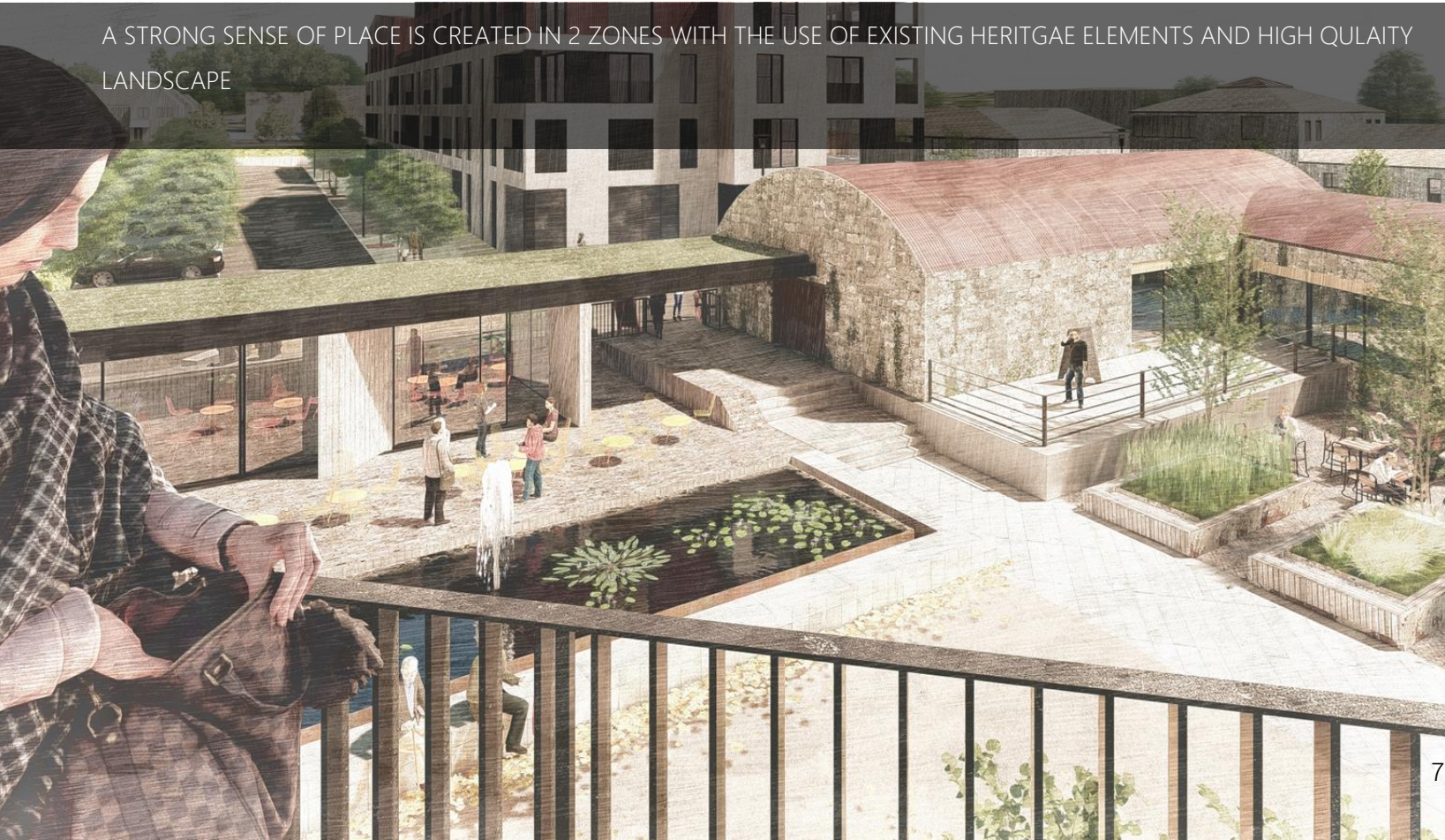
AMENITY SPACES HAVE A RANGE OF QUALITIES FOR VARYING USER GROUPS



CENTRAL COMMUNAL AREA PROMOTES COMMUNITY AND ACTIVITY

VARIETY

The development provides for a mix of apartments types with 46% 2 bed & 46% 1 bed units. This mix is accommodated across a range of different apartment formats providing for a diverse choice of unit type. The high ratio of 1 and 2 bedroom units provides an alternative to the predominantly 3 bedroom semi detached typology currently under construction locally to the north of the site. A mixture of institutional and private residential typologies exist in the immediate surroundings. The proposal adds to this community by the addition of amenity areas open to the public. A 25 child creche facility is also provided on site to add to the existing child care facilities immediately to the south of the site .



A STRONG SENSE OF PLACE IS CREATED IN 2 ZONES WITH THE USE OF EXISTING HERITGAE ELEMENTS AND HIGH QULAIY LANDSCAPE

EFFICIENCY

- The proposal is located in a highly sustainable location with services & employment centres nearby, with the city a short cycle away on existing green infrastructure.
- All buildings are designed to current NZEB standards high insulation values and efficient energy systems.
- With a highly constrained site with arboricultural and heritage constraints, the orientation of kitchen/dining/living areas, internal and external communal spaces have been organised to maximise solar aspect for comfort with 40.7% dual aspect achieved on apartments.
- All waste management on the facility has designated recycling areas for residents and will be actively promoted and monitored by management.



THE PROPOSAL IS LINKED TO ADJOINING GREEN INFRASTRUCTURE OFFERING A HIGHLY SUSTAINABLE LOCATION

DISTINCTIVENESS

The scheme is set out in 2 distinct area zones with a materiality and aesthetic connection between both areas. For the new community all communal areas are focused in one central location to heighten activity and interaction. The scheme has a unique and strong sense of place achieved by its arrangement, heritage engagement and parkland areas. Landscaped areas are arranged amongst existing arboriculture environments in a way to promote a sense of natural amenity and give the scheme a distinctive parkland setting.



LAYOUT

The layout aligns with that set out in historic mapping. Buildings and their configurations have been arranged to renew and set up new desire lines within these formerly active routes. All routes have active supervision and have a sense of place and purpose given their heritage setting. The historic circulation and geometries have formed the foundation to the schemes layout with pedestrian focus and place making as its core generator. Circulation routes become places rather than serving just function. The result allows for a distinctive and highly active layout for residents.



PUBLIC REALM

The main public open space to the North offers passive supervision from nearby residential buildings. As clear definition is presented with buffer zones, railings and /or stepped level changes to all ground floor residents allow privacy from public realm areas.. Materials to landscape elements offer residents a natural and integrated mixture of soft amenity areas with harder spaces provided in more trafficked areas. Roadways and parking areas are integrated with complimentary surfaces to overall landscape approach with planting 'spaces' to reduce visual overbearance in parking areas.

Public realm is at the centre of this schemes distinctiveness given the landscape setting that the scheme responds to. Residents enjoy a range of public realm experiences over different zones within the scheme.



ADAPTABILITY

The structural system avoids load bearing walls and is composed entirely of a column and beam system in either concrete or steel depending on implementation market conditions. This allows for the potential of future adaptability / reconfiguration to larger units if the future demand.

All buildings have an over sized systems room at the ground floor to allow for the possibility of future modification to systems and services as technology continually evolves. Currently all units are designed to fully NZEB compliance with high levels of insulation , air tightness and renewables sources proposed.



PRIVACY AND AMENITY

The building is set out to have appropriate distances between living rooms and neighbouring properties. All ground floor units enjoy a privacy landscape buffered area from trafficked areas, while a significant portion also have an elevated ground floor aspect over these areas. 40.7% dual aspect is achieved across the scheme. Orientations though some constrained by historical geometries are set out to maximise aspects and visual amenity to prospects.



DETAILED DESIGN

Material choice is a key distinctive feature that identifies the scheme in both Farm and Park zones. Traditional galvanised corrugated powder coated sheet panels are used as a main defined element to the materiality across the scheme. This reflects the agricultural heritage of the lands on the site with the adjoining North fields in pasture up until the late 1980s .The use of a dark pallet of colours in the parkland area reduces the visual impact while allowing the tree and vegetation colours more prominence. This identifying feature offers the scheme a distinctive and identifiable place making quality for the new community.

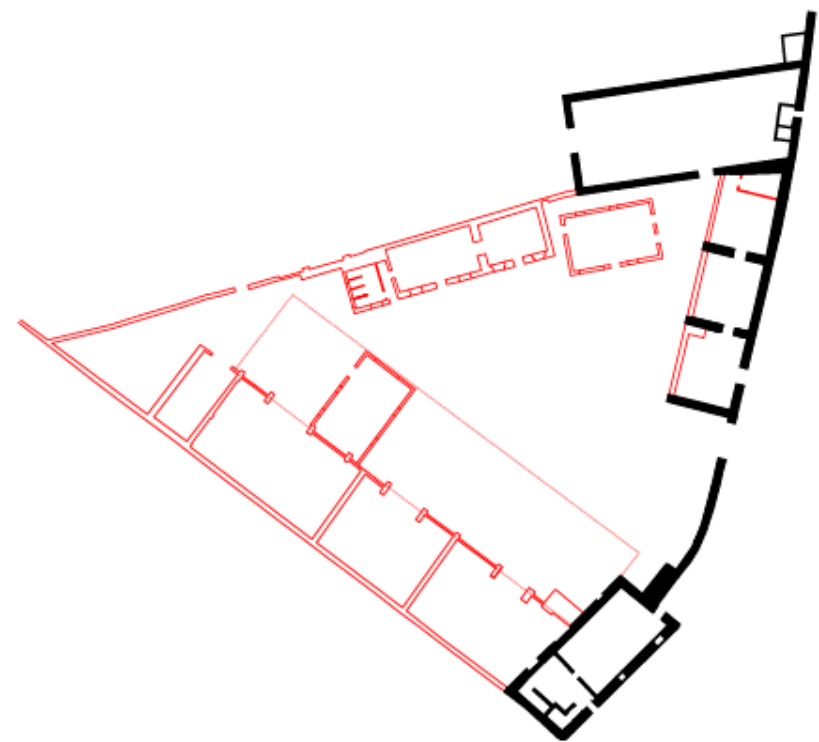
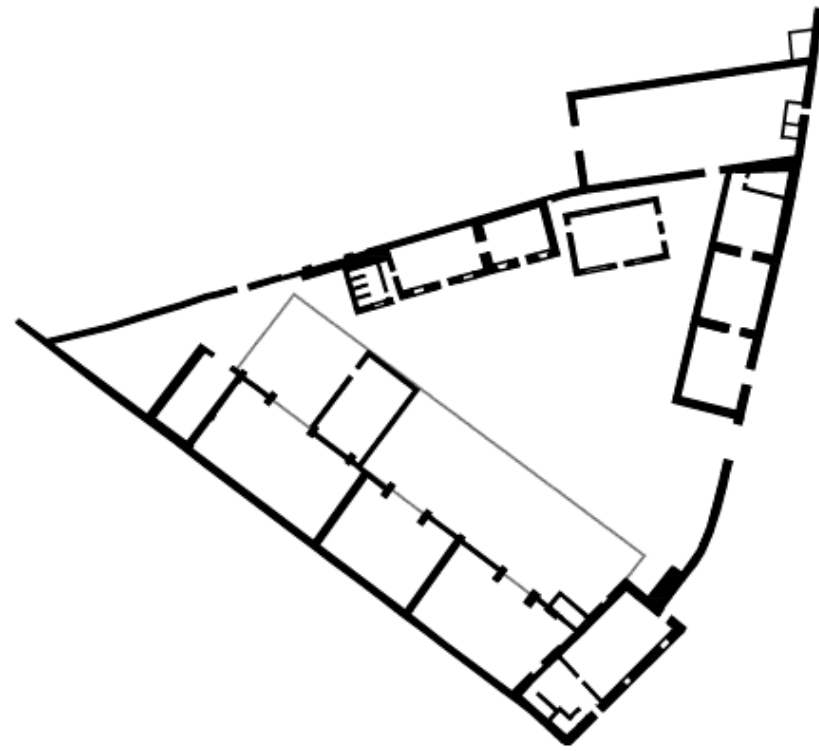
PARKING

Parking is accommodated on the surface in both farm and parkland areas at a ratio of 38.6% given the sustainable location. Parking is set out to compliment the landscape strategy where mature trees break up rows where it is possible. The parkland area has smaller clusters of parking to avoid overbearance and visual clutter. All parking is overlooked by nearby residential buildings and conveniently located. Bike parking for residents is covered and generally located within the entrance area of the building or in close proximity.

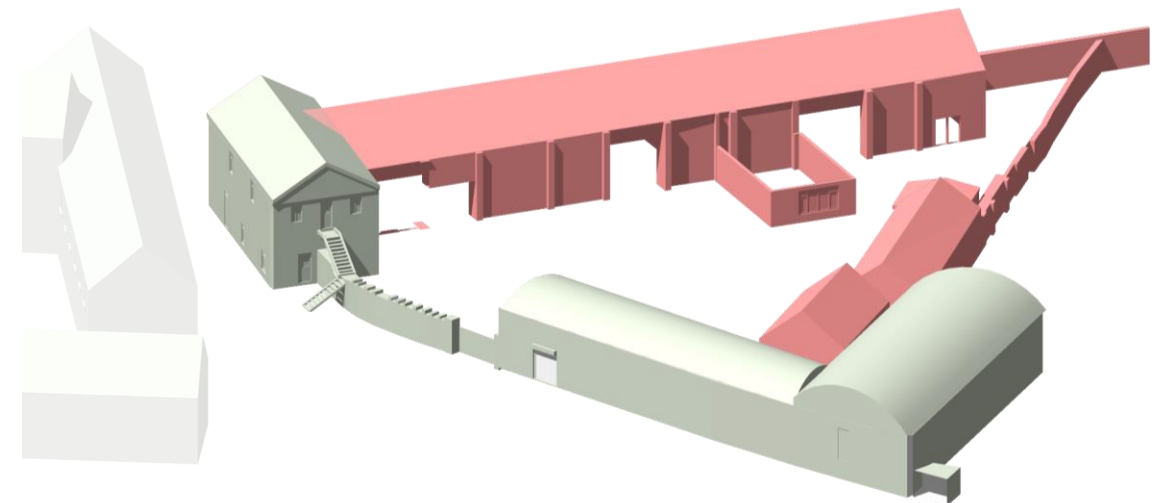


The Farm Area

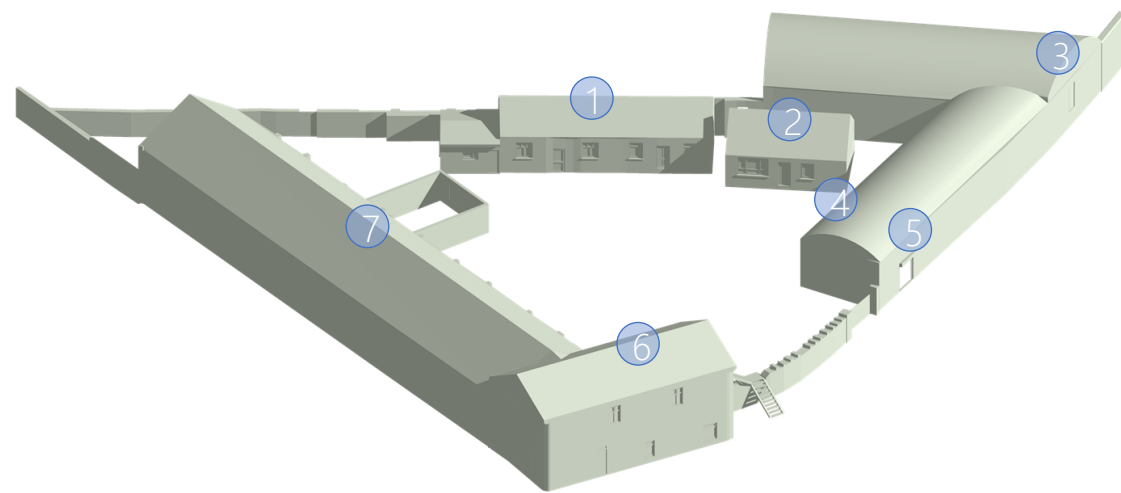




Careful consideration is given to the heritage significance of existing buildings in the Farm area and while not protected, a hierarchy of building heritage value was assessed in conjunction with the teams heritage consultant John Cronin & Associates. Later buildings of poor quality were identified for removal with the core signature elements retained. Key to the reading of the farm is the triangular yard itself with its historical geometry. This also forms a well defined border to the parklands to the west historically. The intend of this is retained with the placement of new buildings to support the conceived original assembly. The long linear barrel vaulted agricultural budlings in high quality stone work form the main generator for design response of the new buildings arrangement and scale.



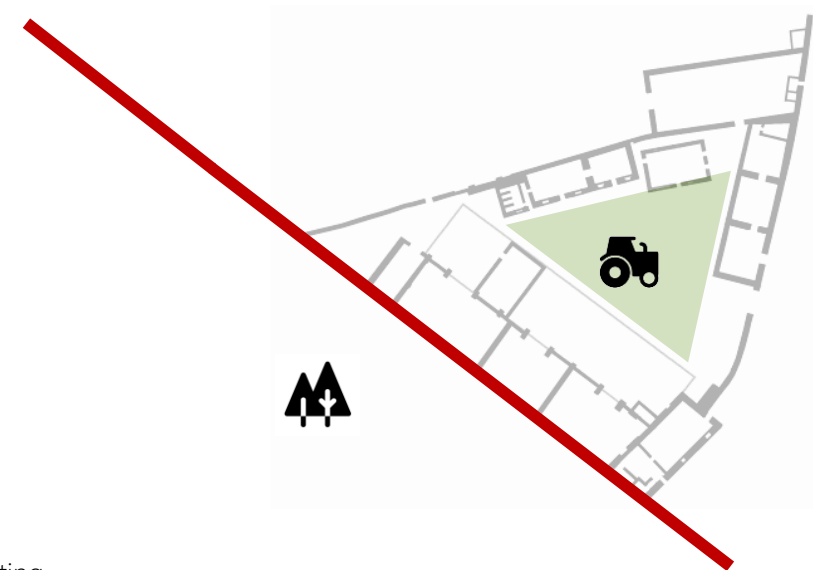
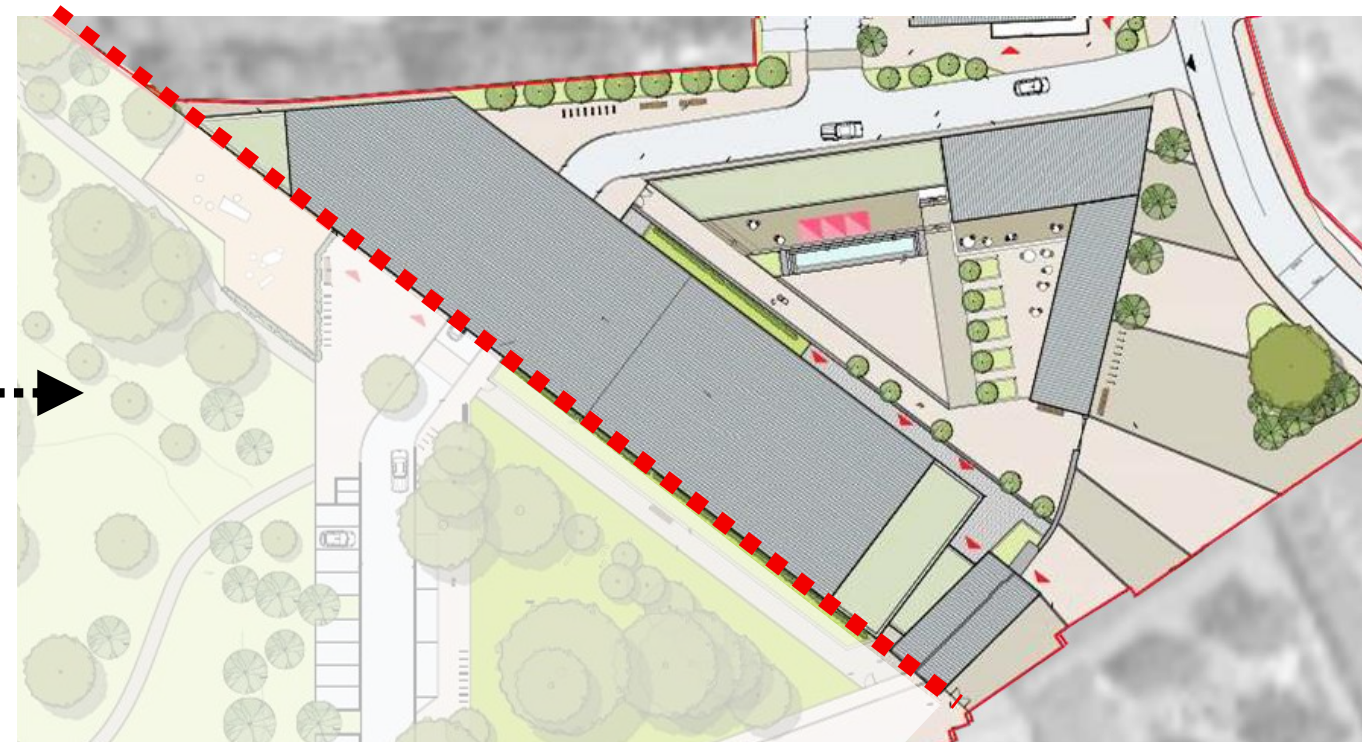
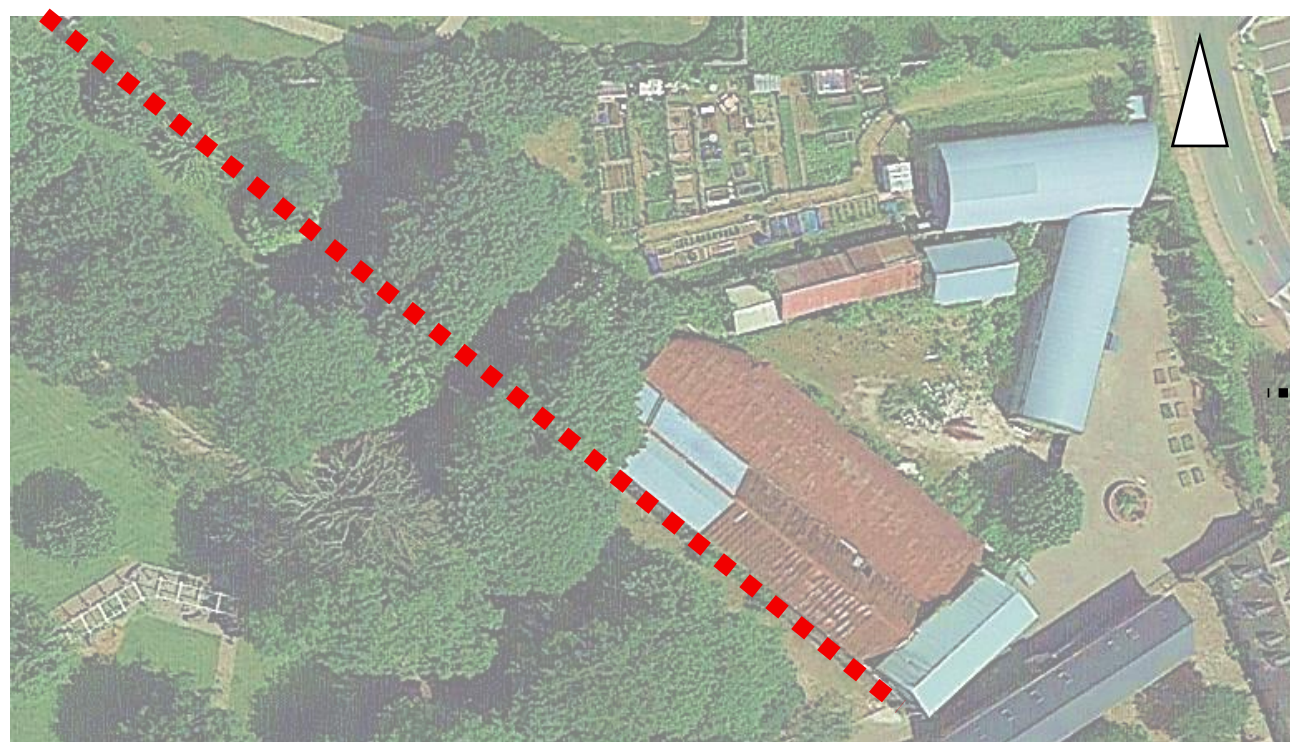
DEMOLITION STRATEGY



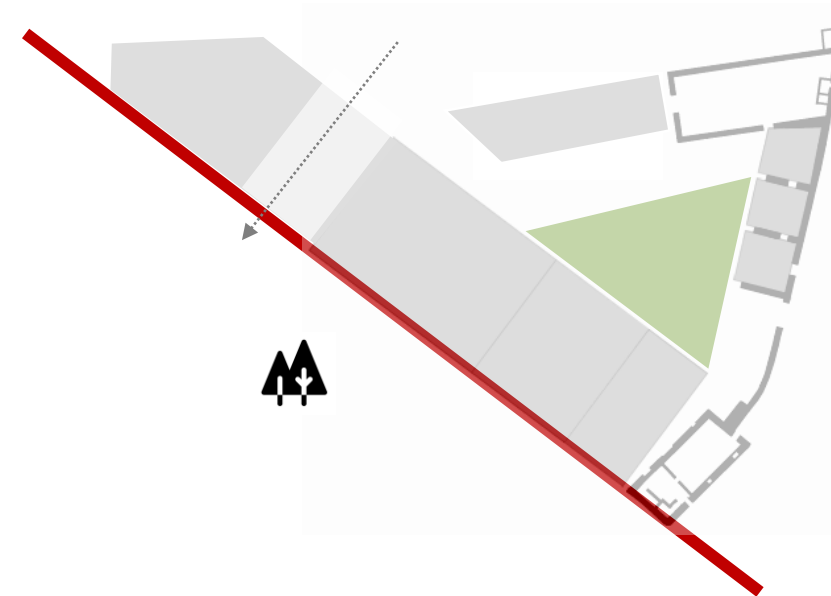
PROPOSED DEMOLITION



THE FARM BUILDINGS TODAY



Existing



Proposed

FARM AREA

Farm area interventions retain spatial arrangements while retaining defined boundary arrangements and geometries

FARM MASTERPLAN APPROACH

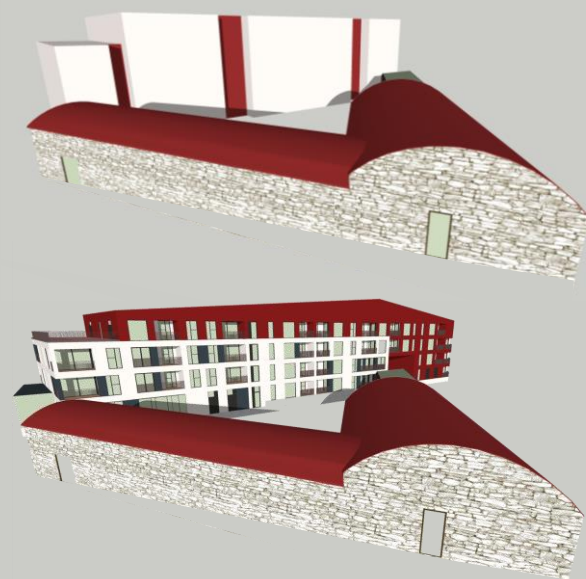


The retained stone buildings are long low linear arrangements derived for their original agricultural function. Their unique form and proportion are characterful and inform a design response to retain this quality of built form and to compliment and add to this special character of buildings.

For these reason the main insertion, Building D, takes its main proportional set-up from these buildings, to add to the special building arrangement of long linear buildings which historically existed on the site and also in building D's location. Care has been given to keep the building at a complimentary scale while achieving a proportionality that compliments the settings arrangement. The enclosing café insertion also follows this discipline and presents as a long linear low building.

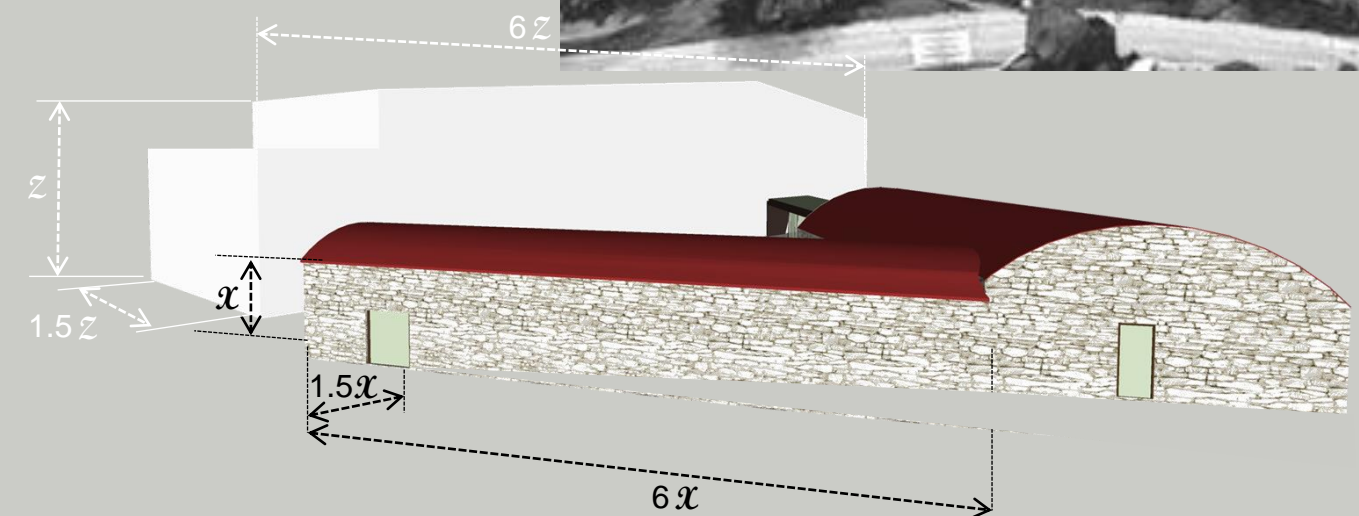
The design of the farm area architecture has remained unchanged since the Tri-Prty engagement with the City Architect approving the approach.

'...The 'crafting' of the 'new build' with the existing farm buildings to form clusters and 'places' is a very good urban design approach. The architectural form, use of materials and massing is to a very high standard.' – City Architect -Tri party report

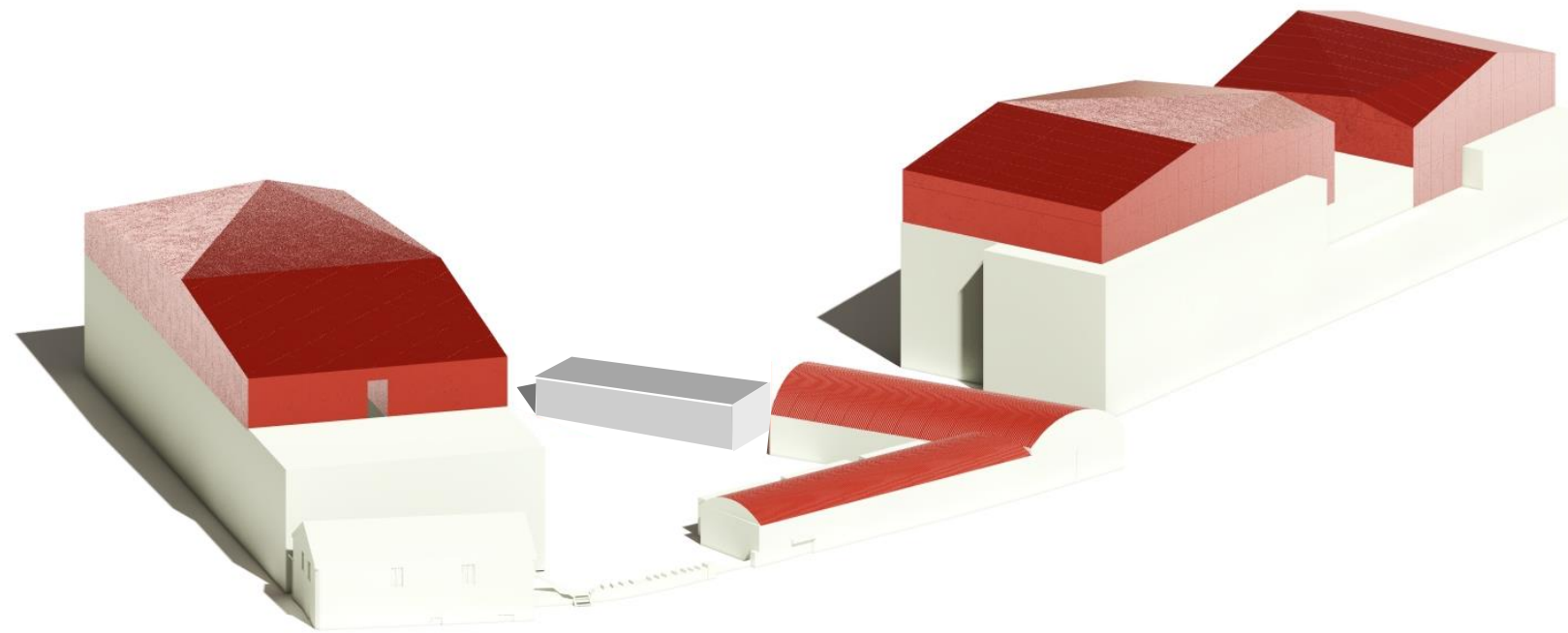


✗

✓



BUILDING D



Painted farming equipment found on site



Dilapidated farmhouse roof on site



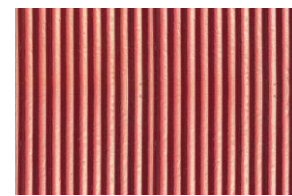
*E.g. Contemporary red metal roofing:
FORUM Limbach by Looping Architecture*



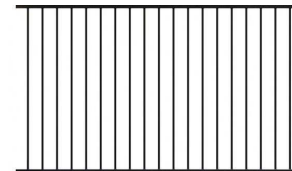
MATERIAL INFLUENCES



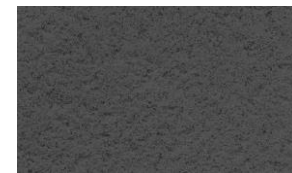
Influenced by the proximity to the Farmyard heritage buildings (constructed c.1880), buildings D, E & F use traditional galvanised corrugated powder coated sheet panels on roof and upper façades.



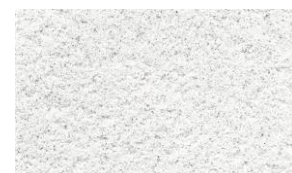
RED CORRUGATED STEEL CLADDING + ROOFING



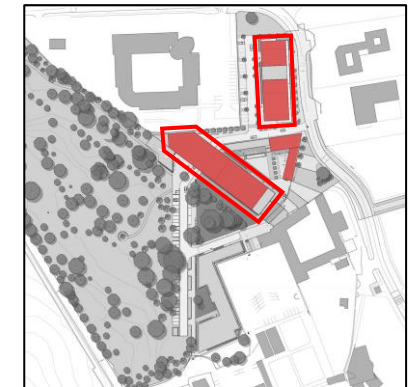
PAINTED GALVANISED STEEL BALCONY HANDRAILS



DARK RENDER
SELF-CLEANING SYSTEM,
CHARCOAL FINISH



WHITE RENDER
SELF-CLEANING SYSTEM,
OFFWHITE FINISH



Treatment to lower facades maintain familiar and complimentary materials of brick and render, used in highly contrasting shades to distinguish the bold style and character of the Farm buildings.

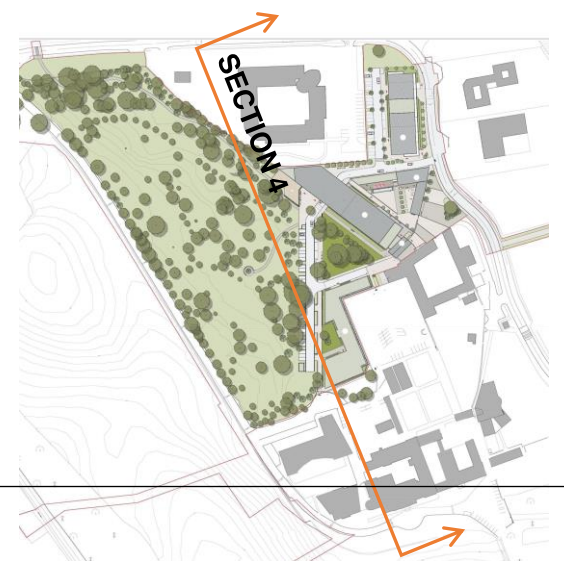


MATERIALITY

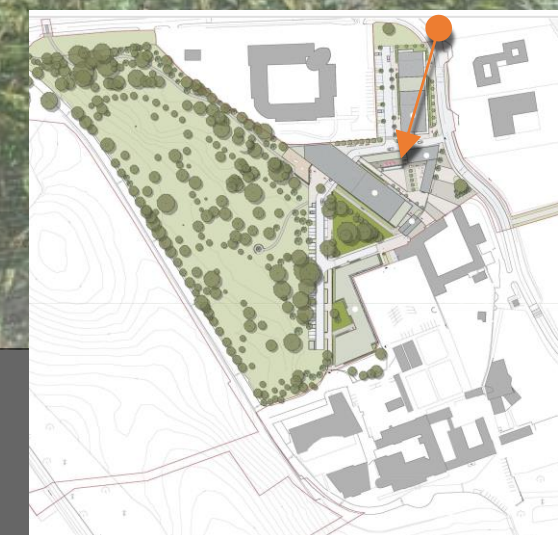


Building E has a stepped massing with lower presentation at 4 floors to the north end to meet the new housing scale adjoining sites under construction and lower scale nearby properties. The building rises to the south to demarc the principle access point to the entire development, where Farm and Park zones may be accessed. The street edge is well defined, presents at a lower scale with the penthouse levels set back at upper levels on both north and south ends .

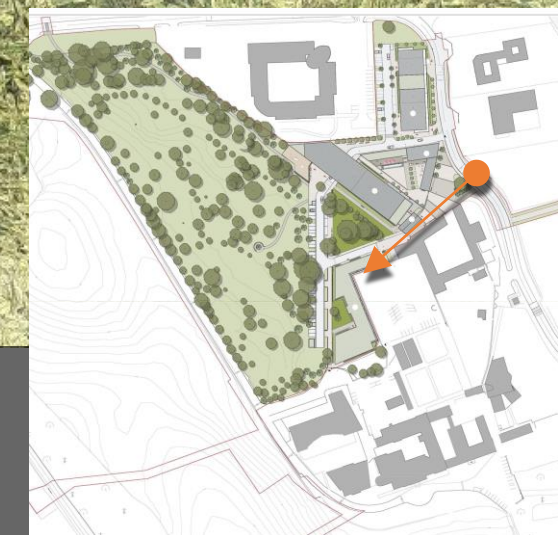
BUILDING E



The Farm Area Overview



Ground level view of building E from the north-easterly corner of the site.



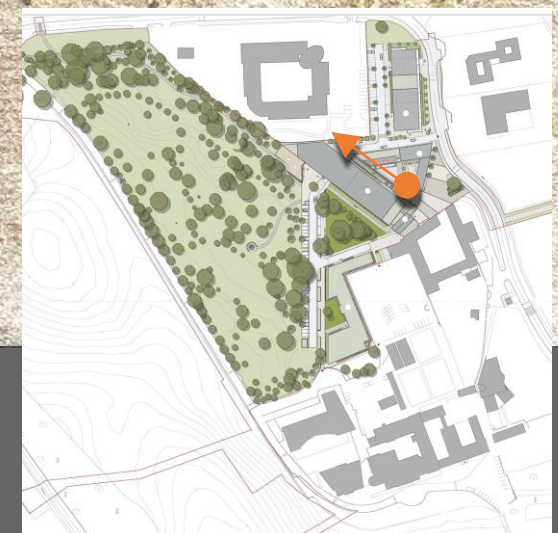
Ground level view of public realm access to the farm and park



Ground level view of new route towards the passage way of building D, showing the Farmyard heritage site (building B, left) and building E (right).



Raised view showing the west entrance to the internal courtyard, enclosed by the Farmyard heritage site (building B front), building D (left) and building E (right).

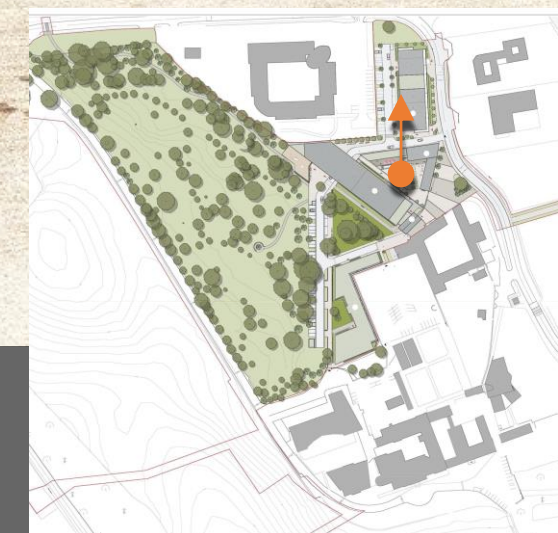


View of internal courtyard facing the café with building D (right) and Farmyard heritage site (building B, right).

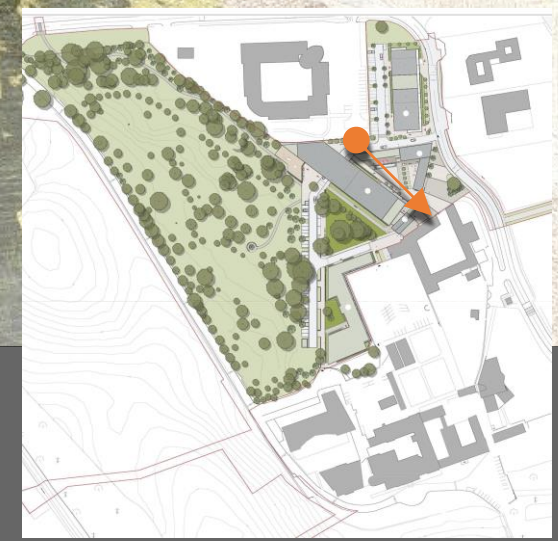


Seated view from patio of building D facing internal courtyard, enclosed by Farmyard heritage site (building B, right) with building E south elevation (background).





View of internal courtyard café with Building D (left), farmyard heritage building B (right) and building E (back right).



Raised view of internal courtyard with Farmyard heritage building B (left) and building D (right)



Bird's eye view of pedestrian path between the Farm and the Park sites, with south facing roof terrace of building D (front) and Building E (back right).

The Park



HISTORICAL

The proposal recognises the former open space area in its conceived layout approach, reinstates and supports historic routes to the parkland area .



ARBORICULTURE

Careful consideration is given to buildings placement to minimise impacts to the existing Arbo setting with coordination between the Arboriculturist and landscape designer to assess full tree inventory and values



AMENITY – RESIDENTIAL COMMUNITY

The parkland former open area is clearly identified in the scheme and offered for public amenity enjoyment with the cluster of residential dwellings to form a unique community feel.

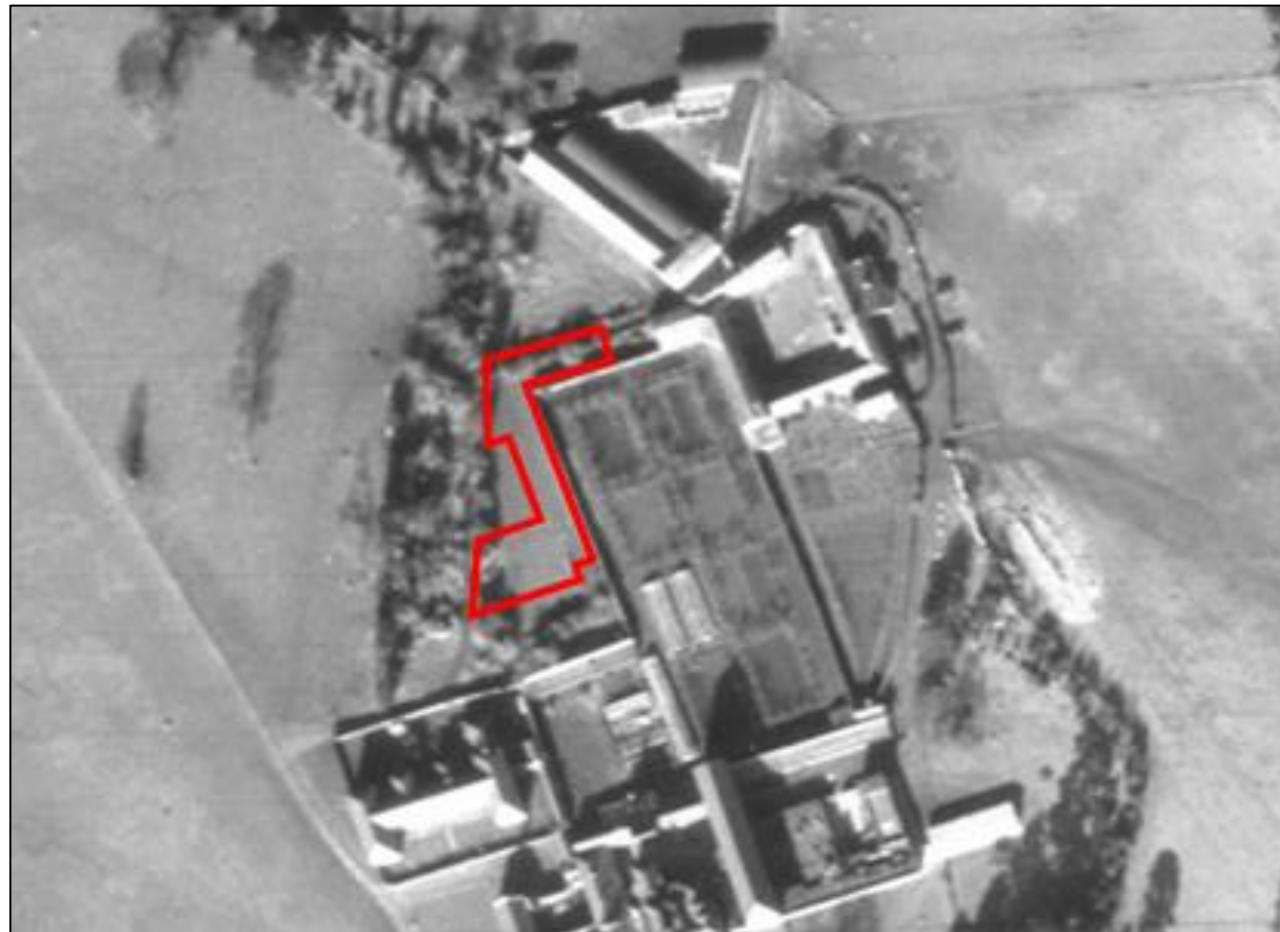
PARK AREA CONCEPT



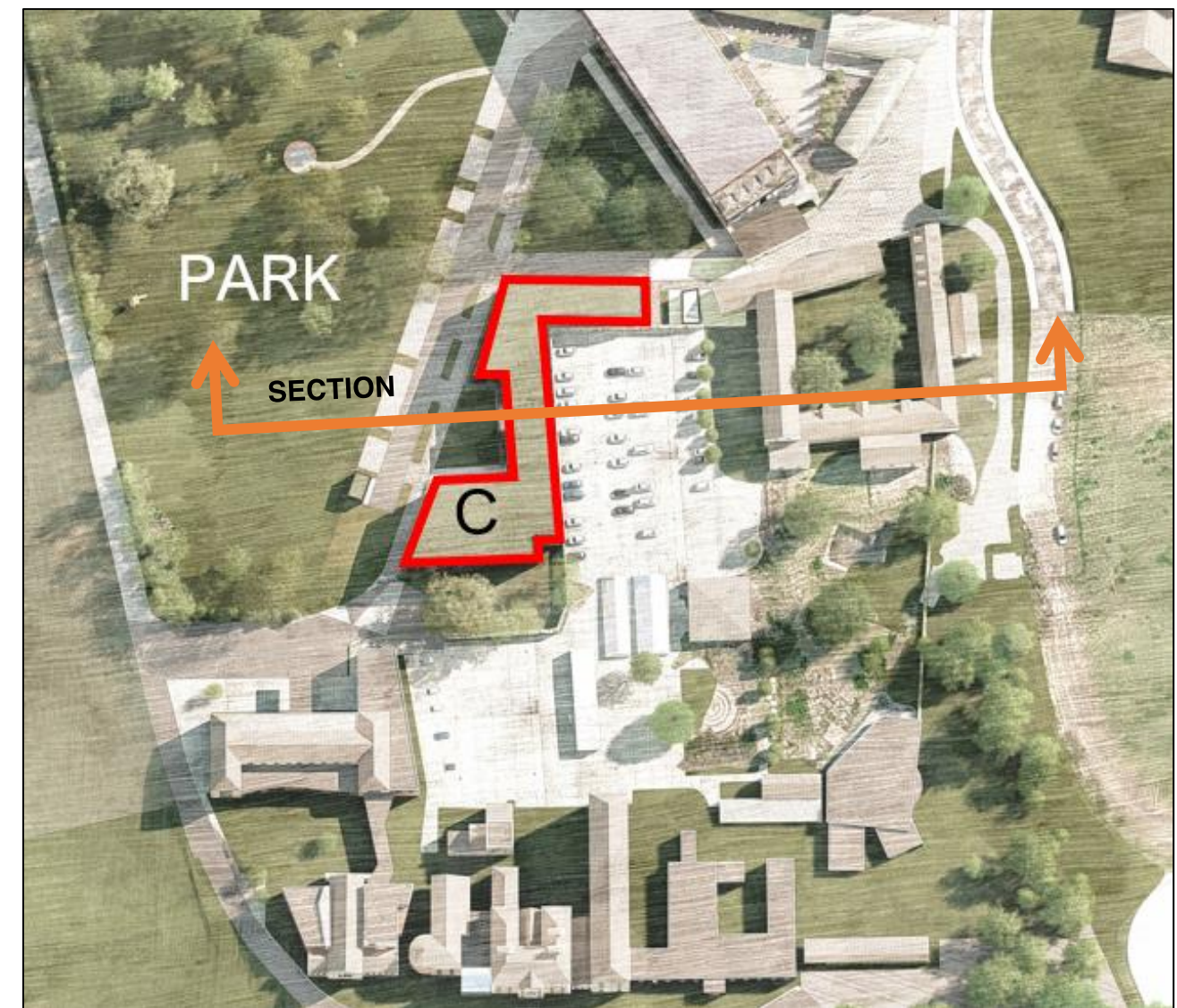
BUILDING C

STABLES COURTYARD
(reg. no. 20872006)

Building C is situated along the boundary edge in order to minimise the impact on the parkland area. This location was historically between a primary access route from the House and open area east of the main intended park open landscape. The height of this new designed building is at 3 storeys to further reduce impacts with the closer proximity to protected structure to the east and south



BUILDING C





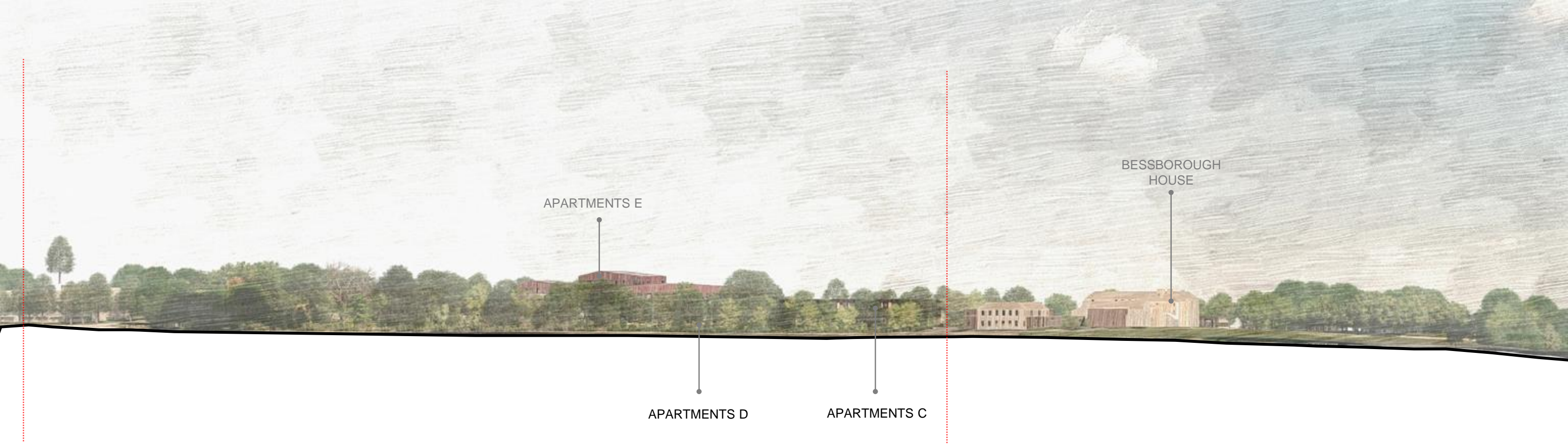
◀ BUILDING C PARKLAND ELEVATION

BUILDING C BOUNDARY ELEVATION ▶

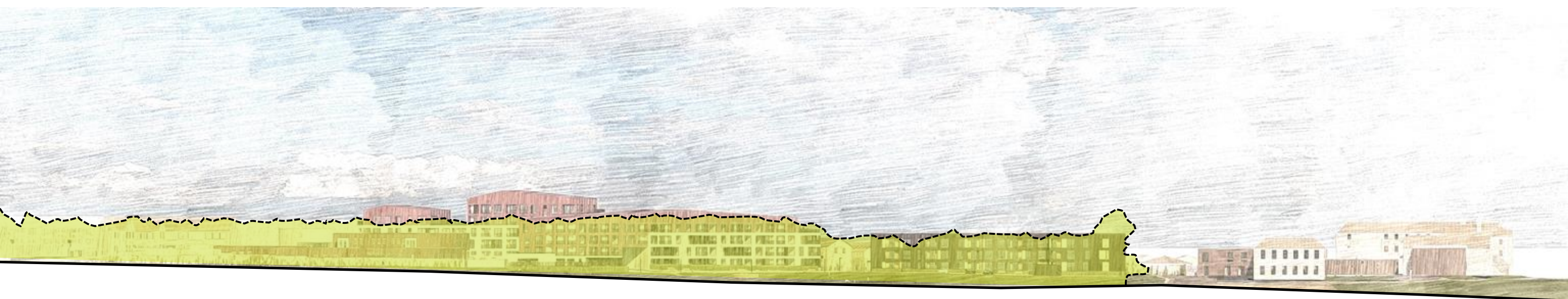
The rear of building C is given a mansard roof to reduce the scale further and compliment the scale to the immediate environment . All corridor windows have opaque glazing preventing over looking the carpark area .



BUILDING C



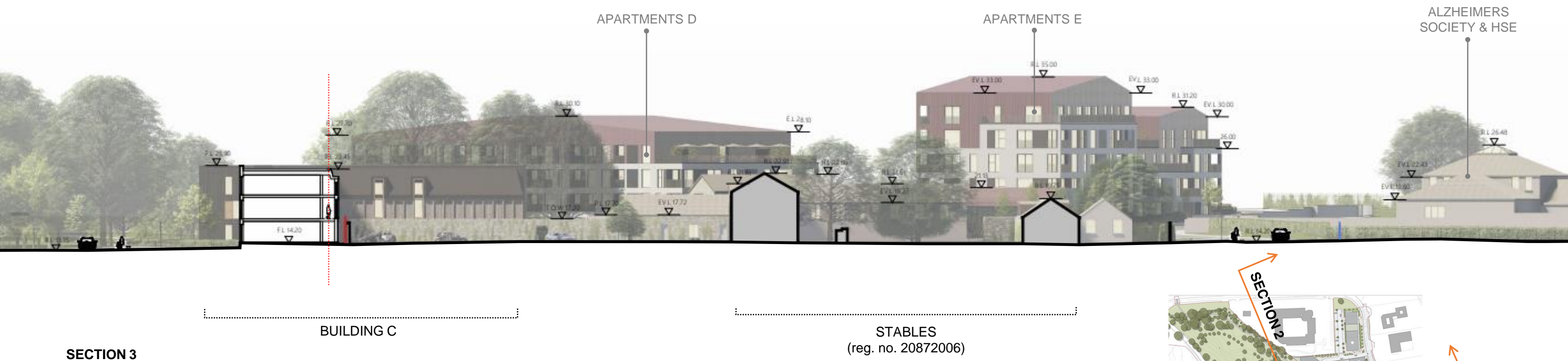
SECTION 1



The parkland area given its proximity to Bessborough house , a discipline of building heights being limited to retained tree canopy heights is adopted with building bounding the park .

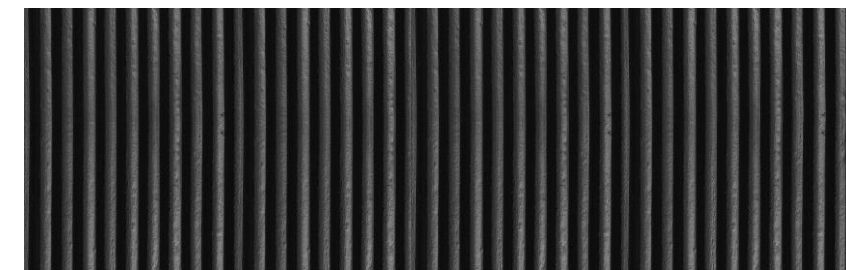
HEIGHTS



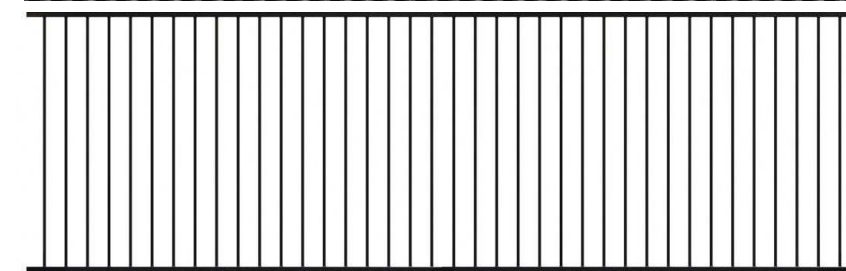


HEIGHTS





BLACK
CORRUGATED
STEEL
CLADDING +
ROOFING

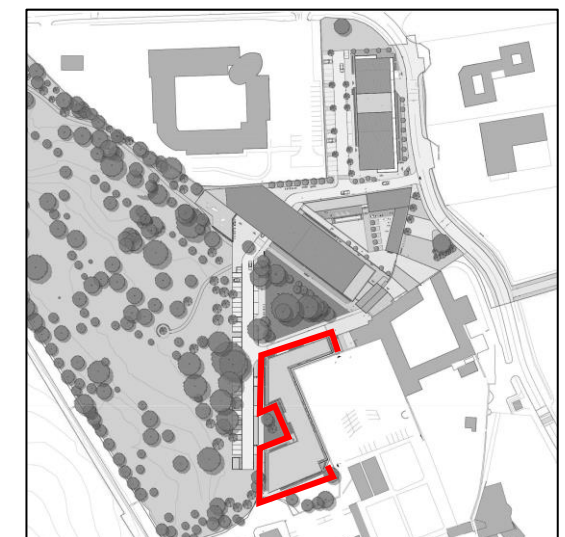


PAINTED
GALVANISED
STEEL
BALCONY
HANDRAILS



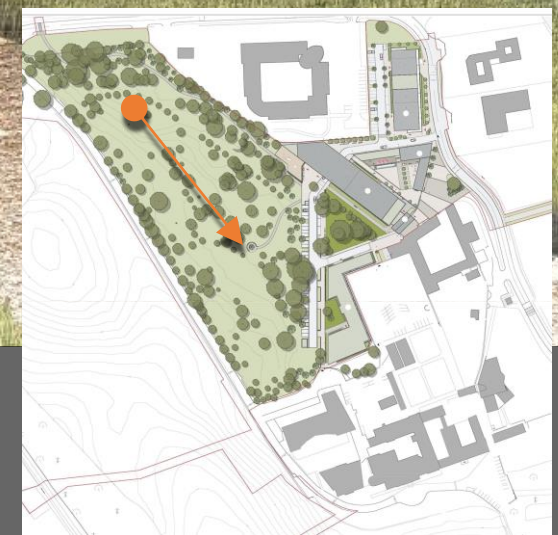
PARKLEX OR
SIMIALR
VENEERED
COMPOSITE
PANEL SYSTEM,

The use of a dark pallet of colours in the parkland area reduces the visual impact while allowing the tree and vegetation colours more prominence. The re-application of corrugated steel (as in the Farm) creates a dialogue between both schemes while maintaining a unique character and atmosphere. The veneered composite carrying red and yellow tones brings a warmth to measured proportions of the façade. Untreated western red cedar is used on the rear elevation facing the carpark.



MATERIALITY

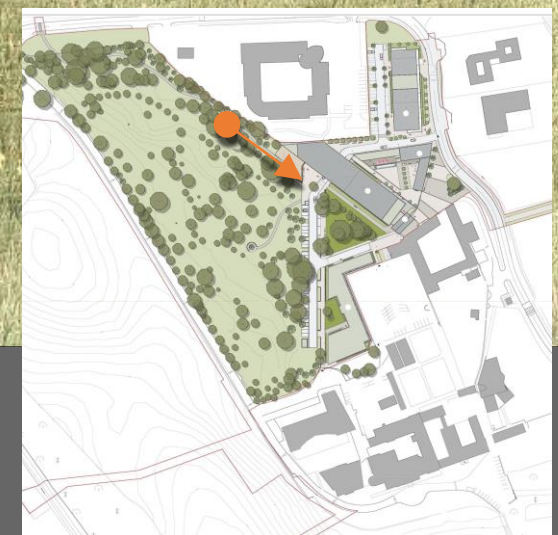
Park Area Overview



East facing view of path through the parklands.



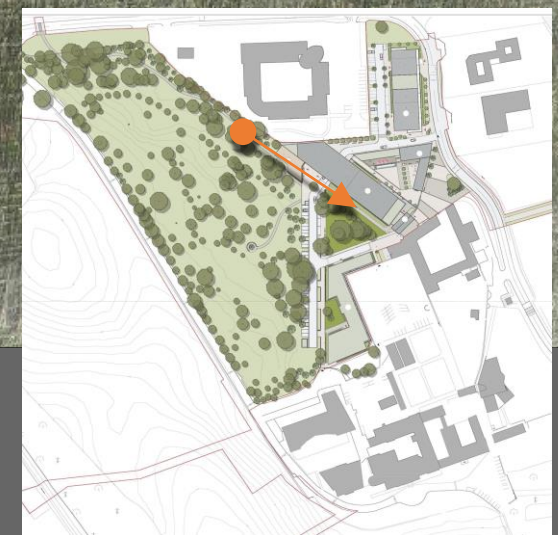
Path through the parklands approaching building C (centre) and building D (left).



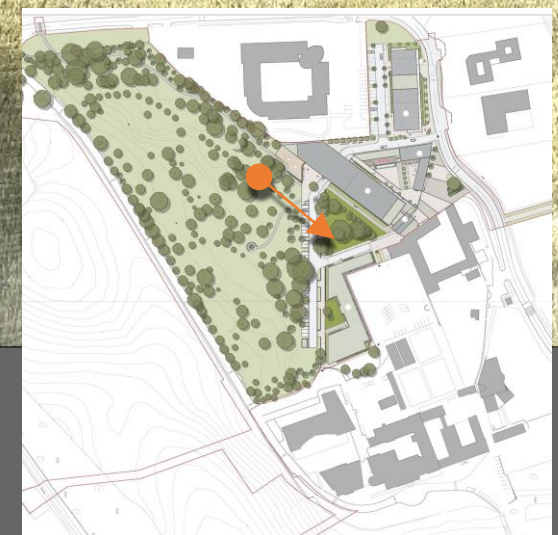
Path through the parklands approaching building D (left) and building C (front).



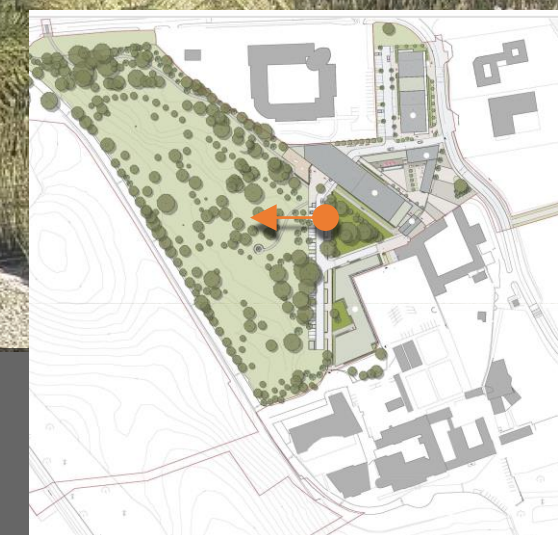
View from the parklands towards building D



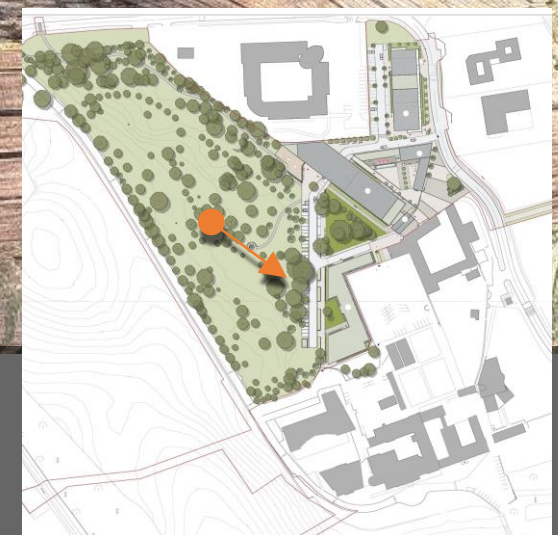
View from new park path approaching building D



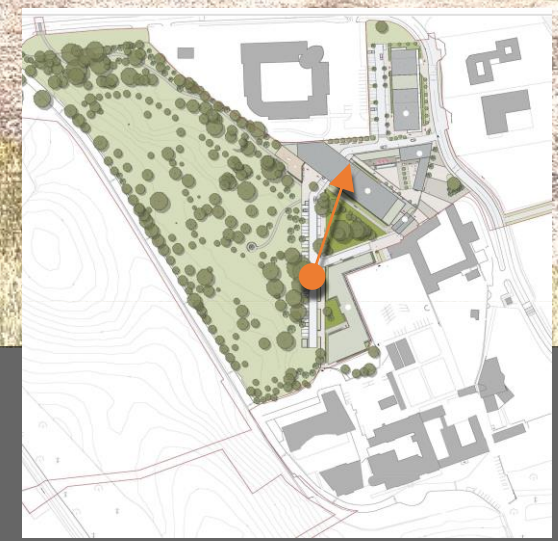
View next to creche play area (on left) between building D (left) and building C (right)



In consultation with the CSSA a 'FARM GIRLS ' Memorial space is proved central to the re-wilded parkland . This is a contemplative space for survivors and their families to meet and gather with the possibility of ceremonial planting to the centre from remembrance and renewal .



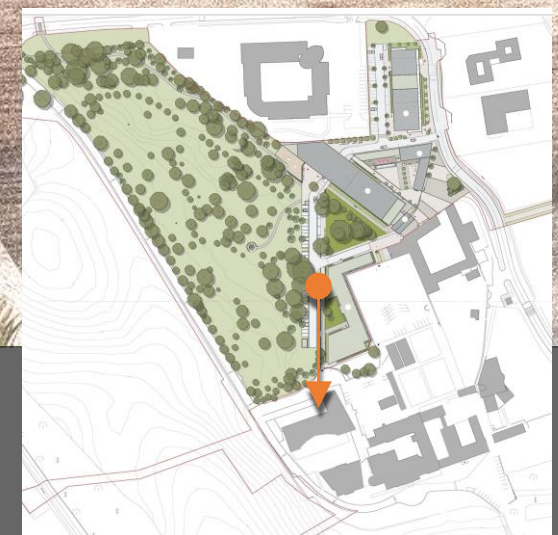
The Farm Girl Memorial is a tranquil space within the Arbo setting with a Southerly aspect surrounded by the now re-wilded landscape .

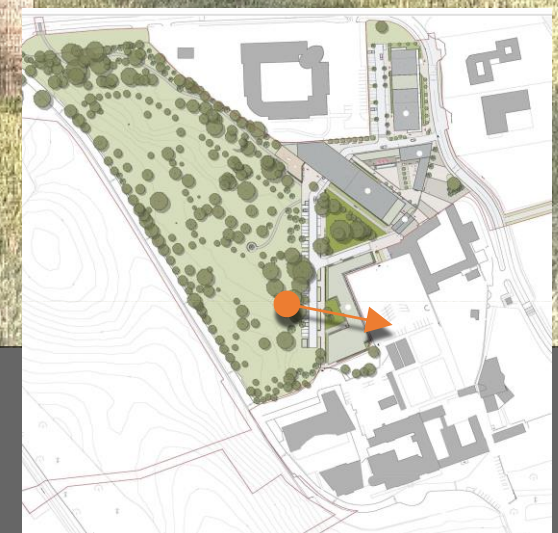


View of amenity area off building D with building d in background



View from threshold of building C towards rear of Bessborough Centre – historic route

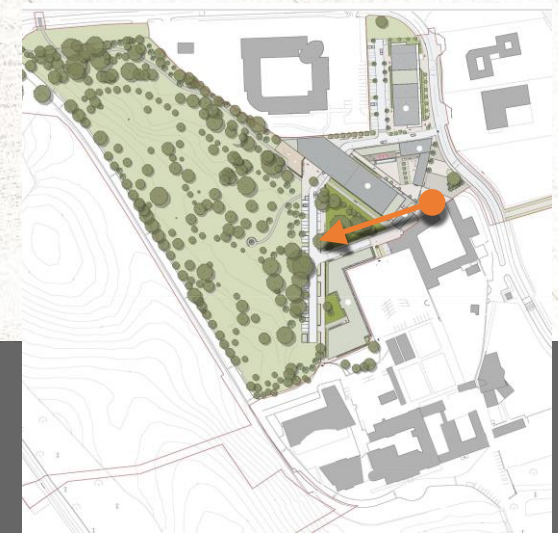




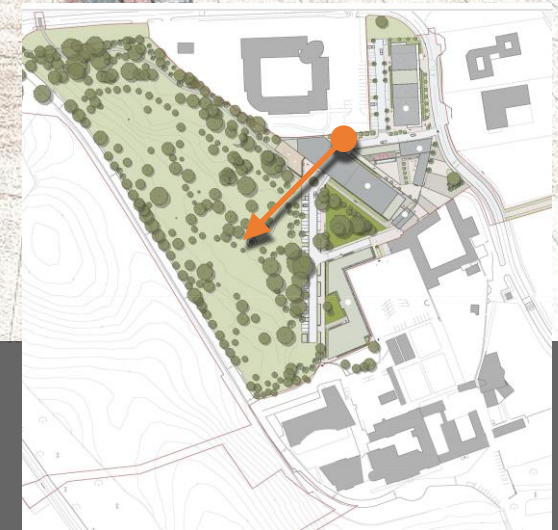
View of building C from edge of Park.



West facing view rear treatment of low scale mansard roof to Building C and opaque corridor glazing



ACCESS/PERMEABILITY - View of link to park from farm area south



ACCESS/PERMEABILITY - View of link to park from farm area North



ACCESS/PERMEABILITY - View to East of site with bridge



ACCESS/PERMEABILITY - View of new access point to North of site through Estate Wall

Amenity



CRECHE

PARKLAND 24,520 SQM

COMMUNAL AMENITY
1,063 SQM

PUBLIC
REALM
1,072 SQM

COMMUNAL
AMENITY
1,223 SQM

PUBLIC REALM 1,554 SQM →

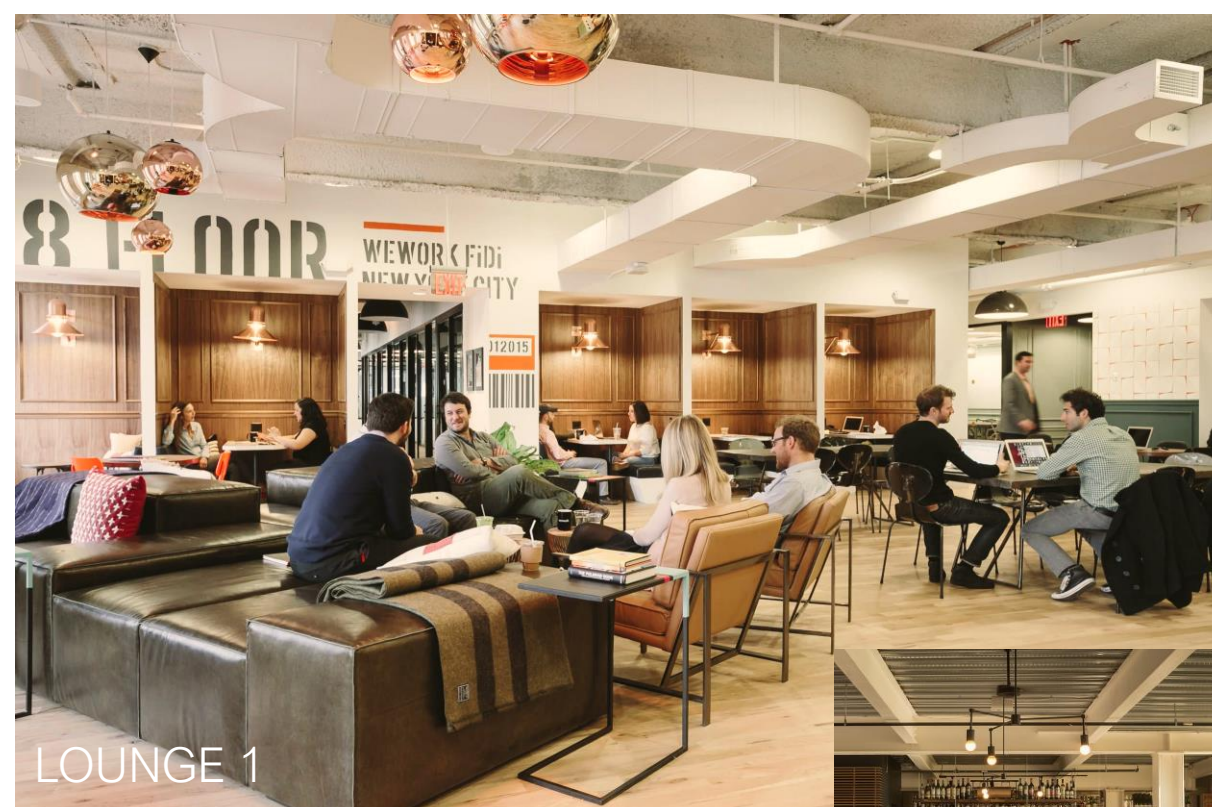
| | |
|-------------------------|-------|
| communal amenity area 1 | 1,063 |
| communal amenity area 2 | 1,223 |
| communal amenity area 3 | 277 |

| | |
|------------------------|-------|
| TOTAL COMMUNAL AMENITY | 2,563 |
|------------------------|-------|

| | |
|--------------|--------|
| Public Realm | 2,616 |
| Parkland | 24,520 |

| | |
|-------------------------|--------|
| TOTAL PUBLIC OPEN SPACE | 27,136 |
|-------------------------|--------|

AMENITY AREAS



LOUNGE 1



LOUNGE 2

Communal areas are located off the central courtyard across the ground floors of building A and B . This space designed be highly active and the proposed uses have the opportunity to interact with the street and offer live frontages with on street seating areas.

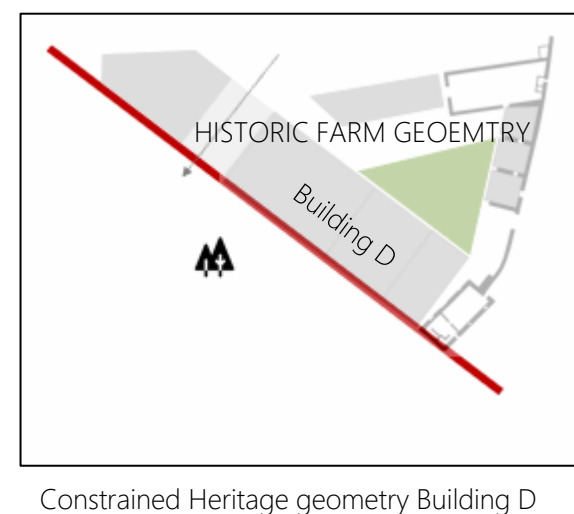
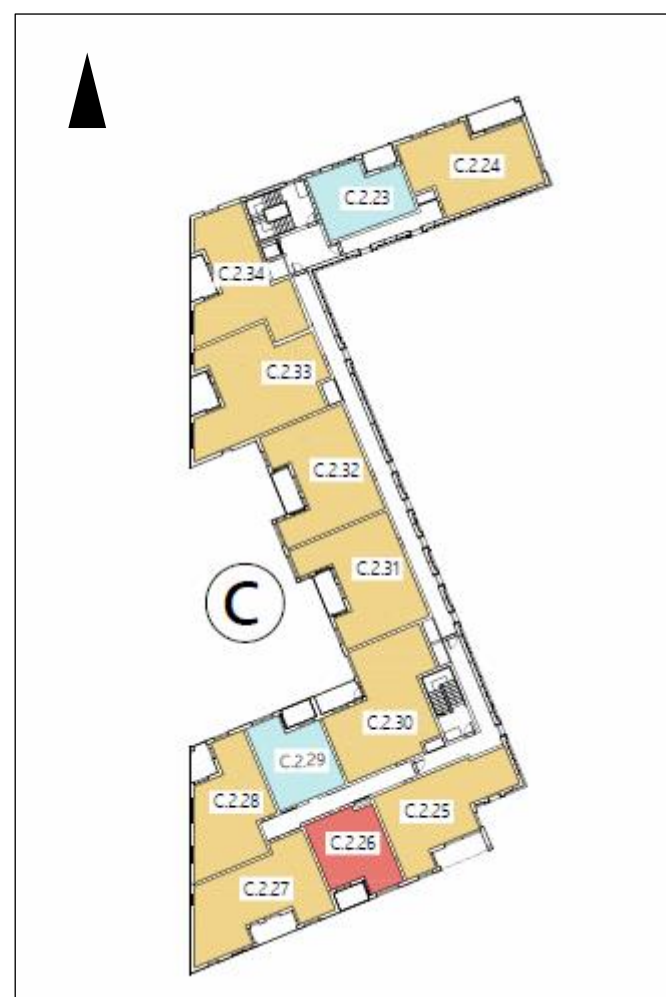
A range of uses are provided for from alternative lounge areas to a games rooms area. A residents gym and meeting room is also provided. In the case of building B, existing Farmyard heritage building are conserved and renovated to new communal uses.



COMMUNAL AREAS

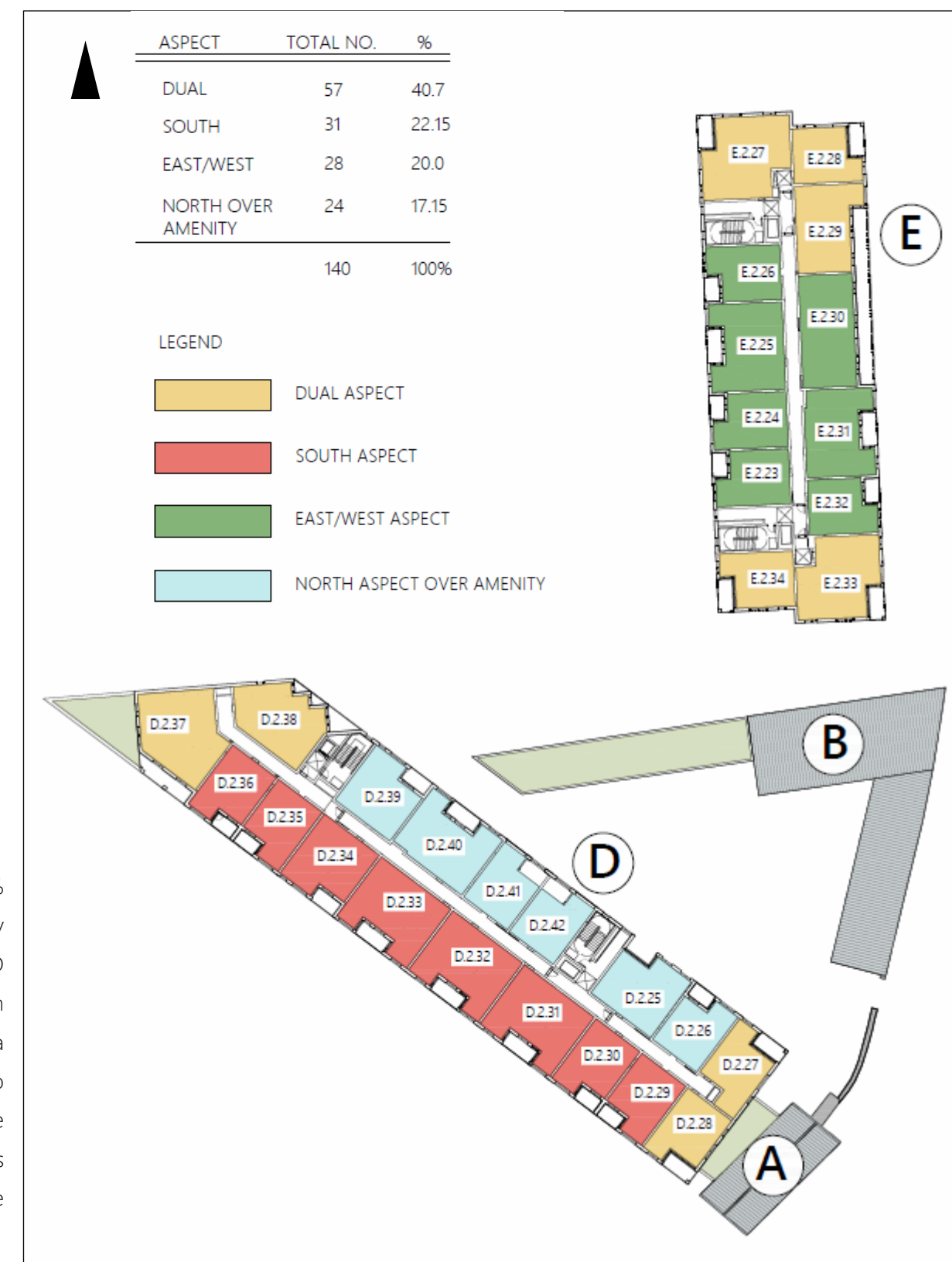


COMMUNAL AREAS



BUILDING C –TYPICAL PLAN LEVEL

Given the accessible location the minimum criteria for assessment is at 33% Dual aspect. The proposal achieve 40.7% Given the heritage constraints, most notable in building D, where specific geometry's and aspects are informed by designing to heritage sensitivities. Through consultation with the City Architect , the long linear arrangement of building D was optimal to secure a clearly defined boundary arrangement to the Park area to its West as per the original Farm complex intent . This reaction to the historical constraints and creation of a high quality design with extensive park area supervision and frontage has limited Building Ds aspect arrangement . Of Note is the geometry of east side apartments to building D are on the threshold of being North facing / East facing. For the purposes of assessment we have classed these as North facing and they are addressing the significant primary courtyard amenity space to the East with low scale buildings to the East and South (B) for a higher quality daylighting exposure. Building C has limited north facing units (6) and are overlooking Amenity areas.

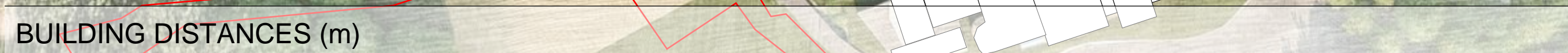


BUILDING D & E -TYPICAL PLAN LEVEL

ASPECT RATIO



STOREY HEIGHTS





PEDESTRIAN



CYCLE



CAR



SERVICE

USER CIRCULATION

Accessibility Statement



ACCESSIBILITY STATEMENT

The proposed Strategic Housing Development seeks to comply with the principles of Universal Design (to encourage access and use of the development regardless of age, size, ability or disability).

The proposed development must meet the requirements of Part M of the Building Regulations.

Part M 2010 came into operation on the 1st January 2012 and the requirements of Part M 2010 must be followed subject to certain Transitional arrangements.

The Design Team recognises that since the introduction of the Disability Act in 2005 Irish Building Regulations (See Figure 1 above) have been revised with Universal Design in mind and a more comprehensive technical guidance document is now in place. This document is known as the Building Regulations 2010 Technical Guidance Document M - Access and Use' or alternatively TGD M 2010.

TGD M 2010 provides guidance in relation to meeting the requirements of Part M of the Second Schedule to the Regulations and focuses on Access and Use. It is important to note that the introduction of TGD M 2010 states:

"The materials, methods of construction, standards and other specifications (including technical specifications) which are referred to in this document are those which are likely to be suitable for the purposes of the Regulations. Where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part M of the Second Schedule to the Building Regulations (as amended). However, the adoption of an

approach other than that outlined in the guidance is not precluded provided that the relevant requirements of the Regulations are complied with.

Those involved in the design and construction of a building may be required by the relevant building control authority to provide such evidence as is necessary to establish that the requirements of the Building Regulations are being complied with".

The Design Team notes that TGD M 2010 is the minimum guidance to show compliance with the requirements of the Part M of the Building Regulations. The Design Team is also firmly committed to achieving universal access in the building and are committed to ensuring equal access for all. All people regardless of ability can approach and gain independent easy access to the proposed works (e.g. sloped access routes; and level access routes, stepped access routes, common areas).

People can circulate within the building and use the facilities (e.g. Lifts; Part M compliant stairwells; door design and surface finishes in common areas).

People can access the main facilities provided within the development.

The proposals will be subject to a DAC application (Disability Access Certificate) to the local BCA (Building Control Authority). The requirements of the application as well as any additional requirements/conditions raised by the BCA will be implemented in full in the course of construction of the proposal.

Building Life Cycle Report

BUILDING LIFE CYCLE

1.0 ASSESSMENT OF LONG-TERM RUNNING AND MAINTENANCE COSTS

- Management of the Owners’ Management Company’s Assets
- Service Charge Budget

2.0 MEASURES TO MANAGE AND REDUCE COSTS FOR THE BENEFIT OF
RESIDENTS

- Building Design
- External Building Fabric Material Selection
- Internal Building Fabric Material Selection
- Energy and Building Services
- Landscape Material Selection
- Waste Management Plan
- Human Health and Well Being
- Transport & Accessibility

3.0 BUILDING INVESTMENT FUND

INTRODUCTION

This Building Life Cycle Report has been prepared for the proposed residential development 'THE FARM at Bessborough, Blackrock, Cork in accordance with the planning guidelines *Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) 2020*.

Section 6.13 of the guidelines requires that apartment applications shall:

"include a building lifecycle report which in turn includes an assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of the residents."

This Building Life Cycle Report document sets out to address the requirements of Section 6.13 of the Apartment Guidelines. The report is broken into two sections as follows:

Section 1: An assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application.

Section 2: Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.

0.1 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development provides for the demolition of 10 no. existing agricultural buildings /sheds and log cabin structure and the construction of 140 apartments over 2 no. retained and repurposed farmyard buildings and 3 no. new blocks of 3-5 storeys in height. The development will consist of 1 no. 3-bedroom apartments, 69 no. 2-bedroom apartments, and 70 no. 1-bedroom apartments, and the refurbishment, amalgamation and change of use of 3 no. agricultural buildings to provide communal facilities. Provision is made for a creche at ground floor level in Building D, and shared communal facilities including a resident's gym, workspace, lounge, function room, library, lobby and concierge facilities across buildings A, B, D and E. Building management facilities including plant and storage areas are provided across all apartment buildings. The proposed development includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas. The development includes new pedestrian/cycle path infrastructure to the north of Bessborough Estate with new archway access point in the estate wall with pedestrian crossing tying into the local footpath network.

SECTION 1

ASSESSMENT OF LONG-TERM RUNNING AND MAINTENANCE COSTS

Management of the Owners' Management Company's assets

A licensed Property Service Provider (PSP) will be contracted to the Owners Management Company (OMC) that will be formed for the residents. The PSP will ensure that the interests of the residents are protected by executing the block management plans efficiently. The PSP will be responsible for the good management of other support services to include finance, administration, insurance, emergency assistance support, company secretarial and communications. As governed by the Multi Unit Development Act 2011, an OMC shall not enter into a contract in excess of 3 years with any supplier. The OMC, by good practice, will re-tender the services received at least each 3 years.

The assets to be transferred to the OMC in accordance with the Act will include the common areas and external fabric of the multi-unit buildings, as well as landscaped areas in their vicinity.

The OMC's operational budgets will benefit from the utilisation of a Planned Preventative Maintenance (PPM) programme. The PPM will be completed annually for each apartment and duplex apartment building to include the shared internal and external common areas. Consideration will be given to the ongoing maintenance of the buildings assets in an effort to protect the asset lifecycle and to identify when replacements/upgrades are required. Items covered will guide which services are required, the timing and number of occurrences of same. Typical PPM programmes will detail the timing of the visits for fire alarm maintenance, lift maintenance, the landscaping specification, waste management protocols, along with day to day cleaning requirements.

Service Charge Budget

A service charge budget will be compiled to put in place funding requirements as costed in the Planned Preventative Maintenance programme and also in the Building Investment Fund report. The budget will be apportioned to unit owners in a fair and equitable way in accordance with the MUDs Act, with the collection of fees into dedicated Owners' Management Company (OMC) bank accounts.

The OMC will promote competitive tendering of running and maintenance services to help minimize charges for residents. The service suppliers will be discharged the payment for their services from these bank accounts. Monthly reports of operational and financial matters will be provided to the OMC executives and annual to the members at the general meeting.

2.0 MEASURES TO MANAGE AND REDUCE COSTS FOR THE BENEFIT OF RESIDENTS

The proposed layouts make efficient use of the land. The buildings have been designed with a low number of stair and lift cores in order to increase efficiencies and ensuring that service charges and maintenance costs faced by residents into the future are kept at reasonable levels.

The apartment design has followed the principles of the BRE guide - “Site Layout Planning for Daylight and Sunlight”. Good levels of sunlight will also be available in the development’s amenity areas. When this guidance is followed the end result is generally a site which is positioned and laid out in such a way which will provide adequate levels of sun lighting and daylighting while creating an ambience that will appeal to any building occupant and reduce the lighting costs.

Lifecycle costs are also determined by the durability and maintenance requirements of materials. We have selected the very highest standard of finishes across the project. Low maintenance cladding materials such as brick finishes are proposed to minimise the impact of façade maintenance. Balconies are designed to be capable of fabrication offsite, resulting in higher standard of finish, reducing damage during construction and improved durability. Building materials proposed for use on apartment block elevations and in the public realm achieve a durable standard of quality that will not need regular fabric replacement or maintenance outside general day-to-day care. The choice of high quality and long-lasting materials such as brickwork, aluminium , steel and zinc cladding as well as hardscape in the semi-public and private realms will contribute to lower maintenance costs for future residents and occupiers.

This report reflects the outline material descriptions and examples of typical materials and systems used for schemes of this nature and their associated lifespans and maintenance requirements. All information is therefore indicative subject to detailed design development.

As the building design develops this document will be updated and a schedule will be generated from the items below detailing maintenance and replacement costs over the lifespan of the materials and development constituent parts. This will enable a robust schedule of building component repair and replacement costs which will be available to the property management company so that running and maintenance costs of the development are kept within the agreed annual operational budget. A general outline of the primary materials used in the scheme can be section 2.2 .

Measures are addressed under following headings:

- (2.1) Building Design
- (2.2) External Building Fabric Material Selection
- (2.3) Internal Building Fabric Material Selection
- (2.4) Energy and Building Services
- (2.5) Landscape Material Selection
- (2.6) Waste Management Plan
- (2.7) Human Health and Well-being
- (2.8) Transport and Accessibility

2.1 BUILDING DESIGN

| Measure | Description | Benefit |
|----------------------------------|---|---|
| Daylighting to units | As outlined in ‘Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (December 2020)’: to have regard for quantitative performance approaches to daylight provisions ‘outlined in guides like the BRE guide ‘Site Layout Planning for Daylight and Sunlight’ (2nd edition) or BS 8206-2: 2008 – ‘Lighting for Buildings – Part 2: Code of Practice for Daylighting’ when undertaken by development proposers which offer the capability to satisfy minimum standards of daylight provision’. Please refer to Daylight Assessment Report prepared by DKP Consulting Engineers submitted with this application. | Reduces the requirement for continuous daylighting, thus reducing the expense of artificial lighting |
| Daylighting to circulation areas | Natural lighting provided via tall windows at circulation cores. | Reduces the requirement for continuous artificial lighting. |
| External Lighting | External lighting will comply with the latest standards and achieve: □Low-level lighting □Utilise low voltage LED lamps □Minimum upward light spill Each light fitting is to be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile. | Lighting will be designed to achieve the required standards, provide a safe environment for pedestrians, cyclists, and vehicular traffic, provide surveillance and limit the impact on the artificial lighting on surrounding existing flora and fauna. |

2.2 EXTERNAL BUILDING FABRIC MATERIAL SELECTION

| Measure | Description | Benefit |
|-----------------------------|--|--|
| Render | Used on buildings E & D. Where specified it will be a pigmented render system with lifecycle of circa 25 years. Cleaning of algae and other staining is recommended annually by property maintenance team. | Finish does not require repainting every few years. |
| Metal Cladding - walls | Corrugated Metal facade panels on galvanised metal rainscreen support system above glazing openings and with typical life expectancy of 35 years. | Aesthetic impact, durability and weathering. Annual inspection and cleaning every 5 years. |
| Metal Cladding roofs | Metal facade panels on galvanised metal rainscreen support system above glazing openings and with typical life expectancy of 30 years. | Aesthetic impact, durability and weathering. Annual inspection and cleaning every 5 years. |
| Timber Cladding | Used to rear of building C – western red cedar or similar to have low maintenance un-treated finish to East and South walls to avoid algae blooms . This material has typical life expectancy of 25 -30 years. | Aesthetic impact in heritage setting , durability and weathering. Annual inspection and treatment / cleaning not required. |
| Flat Roofs | TPO or similar roofing membrane with 22- 30 year lifespan installed to manufacturer's proven details. Appropriate protection for access to ensure maintenance of any roof equipment will be carried out without any damage to the membrane. Regular maintenance checks by property maintenance team. | Proven roofing system with regular maintenance prevents needs for repairs and additional cost to residents. |
| Sedum Roof | Extensive Green Roof System. Average life cycle of 13- 35 years. Life cycle extended with robust proven detailing and appropriate regular maintenance quarterly every year. | Attenuation for storm water run off and less burden and maintenance of rainwater goods. Increased thermal and sound insulation to the building, aesthetic appeal and increased biodeversity. |
| Windows and Doors | All units double glazed with thermally broken frames in uPVC or Aluminium. | Minimal ongoing maintenance |
| Steel Balconies | Prefinished powder-coated and capability to be manufactured off site | Minimal ongoing maintenance. |
| Steel and Glass Balustrades | Powder coated steel finish | Requires minimal ongoing maintenance |

2.3 INTERNAL BUILDING FABRIC MATERIAL SELECTION

| Measure | Description | Benefit |
|--|---|--|
| Floors – apartment stair cores and entrances | Selected anti-slip porcelain or ceramic floor tile with inset mat well at entrance doors as required. Life span of 20-25 years. | Low maintenance and easily cleaned. |
| Floors – lobbies/corridors | Selected carpet inlay on underlay. 13 years life span typically. Regular cleaning by property maintenance team. | Attractive aesthetic for residents and flexibility to change in the future. |
| Walls | Selected contract vinyl wallpaper feature or selected paint finish with primer. Wall protection at heavy traffic areas with plasterboard substrate adjacent to lift cores where furniture moving will damage wall fabric. Finish lifespan of 2- 10 years, regular maintenance required. | Attractive aesthetic for residents and flexibility to change appearance in the future. |
| Ceilings | Selected paint finish with primer to skimmed plasterboard ceiling. | Decorative and durable finish. |
| Internal balustrades and handrails | Painted metal balustrade or proprietary glazed panel system face fixed to stair stringer/landing edge with polished stainless-steel brackets and clamps to manufacturers installation details. | Durable finish. |
| Internal Doors and Frames | Selected primed and painted solid internal doors. Glass and aluminum door system to glazed entrances. | Durable finish with regular inspection and maintenance. |

2.4 ENERGY AND BUILDING SERVICES

| Measure | Description | Benefit |
|---|--|--|
| Nearly Zero Energy Building specifications (nZEB) | The dwellings will be nearly-Zero Energy dwellings. | Reduce primary energy demand by 70% viz. 2005 standards. |
| BER targets | A2 | Reduce primary energy demand by 70% viz. 2005 standards. |
| Highly insulated building fabric | Ground floors: $U \leq 0.12 \text{ W/m}^2\text{K}$ External walls: $U \leq 0.15 \text{ W/m}^2\text{K}$ Roof: $U \leq 0.11 \text{ W/m}^2\text{K}$ Windows: $U \leq 1.3 \text{ W/m}^2\text{K}$ Solar transmittance ≥ 0.70 | Effective reduction of thermal energy demand |
| Thermal bridging | Acceptable Construction Details employed. Thermal bridging measured, with resultant values lower than the default. | Effective reduction of thermal energy demand |
| Airtightness | 3 to 3.5 $\text{m}^3/\text{m}^2\cdot\text{h}$ @ 50 Pa maximum | Effective reduction of thermal energy demand |
| General ventilation | Demand-controlled mechanical extract system or mechanical heat recovery system | Effective reduction of thermal energy demand |
| Heating / hot-water controls | Time clocks and thermostats for each heating / hot-water zone | Effective reduction of thermal energy demand |
| Pumping | Variable speed pumps | Effective reduction of thermal energy demand |
| Lighting | 100% LED lighting | Effective reduction of electrical energy demand |

2.5 LANDSCAPE MATERIAL SELECTION

| Measure | Description | Benefit |
|----------------------------------|--|--|
| Paving and Decking Materials | Use of robust high-quality materials and detailing to be durable for bikes, play, etc. | Ensures the longevity of materials. |
| Site Layout & Landscaping Design | High quality landscaping both hard surface (for the cycle /car parking and pavements) and soft landscaping with planting and trees. The landscaping will be fully compliant with the requirements for Part M / K of the Technical Guidance Documents and will provide level access and crossings for wheelchair users and pedestrians with limited mobility. Designated car parking including accessible & visitor car parking reduces the travel distances for visitors with reduced mobility. The landscape design approach is to provide a variety of high- quality durable communal recreation areas for residents within the blocks which feature a range of quality tree, shrub and herbaceous planting. Hard landscape paving and decking materials will be robust and durable and installed using proven details to minimise maintenance requirements. | Plenty of room for cycles and pedestrians along with car spaces provide a good balance between pedestrians and car users. Wheelchair user-friendly. A landscape maintenance company will be retained by the OMC(s) to ensure regular maintenance improves the quality of the living environment for all residents. |
| Balconies & openable windows | Use of balconies & openable windows allow individuals to clean windows themselves. | Reduces the cost and reliance on 3rd party cleaning & maintenance. |

2.6 WASTE MANAGEMENT

| Measure | Description | Benefit |
|--|---|---|
| Construction Waste Management Plan | The application is accompanied by a Construction Waste Management Plan by the applicants. | The report demonstrates how the scheme complies with best practice. |
| Storage of Non-Recyclable Waste and Recyclable Household Waste | Domestic waste management strategy: Grey, brown and green bin distinction. Competitive tender for waste management collection who will prepare an operational waste management plan for the site. | Helps reduce potential waste charges. |
| Composting | Organic waste bins to be provided throughout. | Helps reduce potential waste charges |

2.7 HUMAN HEALTH AND WELL-BEING

How human health and well-being is been considered:

| Measure | Description | Benefit |
|---------------------|---|--|
| Natural / day light | The design, separation distances and layout of the apartment blocks have been designed to optimise the ingress of natural daylight/ sunlight to the proposed dwellings to provide good levels of natural light. | Reduces reliance on artificial lighting, thereby reducing costs |
| Accessibility | All units will comply with the requirements of Building Regulations, Technical Guidance Documents Parts K and M. | Reduces the level of adaptation, and associated costs potentially necessitated by residents' future circumstances. |
| Security | The scheme is designed to incorporate passive surveillance with the following security strategies likely to be adopted: <ul style="list-style-type: none">• CCTV monitoring details• Secure bicycle stands• Overlooked communal open space in the form of a courtyard. | Helps to reduce potential security/ management cost |
| Natural Amenity | The site has a very high quality of natural amenity space. Tree retention to the parkland area has maximised with 280+ trees retained and will offer ecologically diverse routes for residents to enjoy. Additional pockets throughout the site as well as communal amenity spaces adjacent to the apartment blocks. Play areas have been provided in parkland setting. | Facilitates community interaction, socialising and play- resulting in improved well being |

2.8 TRANSPORT & ACCESSIBILITY

Transport considerations for increasing the update of the use of public transport, cycling and walking and reducing the ownership of private cars and reducing oil dependency:

| Measure | Description | Benefit |
|--|---|---|
| Access to Public Transport | <p>The development is located nest to the main passage west /city greenway on the boundary to the east. The site is located next to the nearby shopping and employment areas within 10 minutes walk away .</p> <p>A public bus service is provided to the North connecting to the city centre</p> | Availability, proximity to bus services and greenway reduces the reliance on the private motor. |
| Storage of Non-Recyclable Waste and Recyclable Household Waste | Domestic waste management strategy: Grey, brown and green bin distinction. Competitive tender for waste management collection. | Helps reduce potential waste charges. |
| Composting | Organic waste bins to be provided throughout | Helps reduce potential waste charges. |

3.0 Building Investment Fund

In accordance with the MUDs Act, the OMC(s) will allocate a certain portion of funds towards a sinking fund, in order to adequately resource long-term replacement of components. The Building Investment Fund table below illustrates what could be incorporated in the calculation of a Sinking Fund:

| Element | Life Expectancy |
|---|-----------------|
| <i>Roofs</i> | |
| Replacement roof covering incl. insulation to main roofs | 30 |
| Replacement parapet, fascia details | 18 |
| Replace roof access hatches | 25 |
| Specialist Roof Systems - Fall arrest | 25 |
| Waterproofing details to penthouse paved areas | 12 |
| | |
| <i>Elevations</i> | |
| Render replacement / repair | 35- 50 |
| Metal Panels - recoating | 25 |
| Minor repairs to render areas | 18 |
| Replace exit/entrance doors | 25 |
| Replace rainwater goods | 25 |
| Replace balcony floor finishes | 25 |
| | |
| <i>External Areas/Car Parking</i> | |
| External handrails and guarding | 18 |
| Surface finishes | 18 |
| Check drains for accumulation of debris and other sediments | 6 |
| Repaint parking spaces and numbering | 7 |
| Replace bike stands | 25 |
| Replace access control at entrances | 12 |
| | |
| <i>M&E Services</i> | |
| Internal re-lamping common areas | 7 |
| Replace internal light fittings | 18 |
| Replace external light fittings | 18 |
| Replace smoke detector heads | 18 |
| Replace manual break glass units | 18 |
| Replace fire alarm panel | 18 |
| Replace lift car and controls | 25 |
| Replace AOVs | 25 |
| Emergency lighting | 20 |
| External mains water connection | 20 |

Key Data

AREA SCHEDULE - BESSBOROUGH FARM, 140 APARTMENTS

| KEY DEVELOPMENT AREAS (SQ.M) | |
|------------------------------|-------------|
| SITE REDLINE AREA | 51,250.0 |
| SITE DEVELOPABLE AREA | 42,842.0 |
| G.D.A. | 14,937.8 |
| PLOT RATIO | 0.3 |
| SITE COVERAGE | 10.5% |
| HEIGHT RANGE | 1-5 STOREYS |

| GROSS DEVELOPMENT AREA (SQ.M) | | | | | | |
|-------------------------------|---------|---------|---------|---------|---------|------------|
| LEVEL | BLOCK A | BLOCK B | BLOCK C | BLOCK D | BLOCK E | SUBSTATION |
| 0 | 128.3 | 450.0 | 1,251.1 | 1,508.0 | 1,118.0 | 24.6 |
| 1 | 29.3 | 39.0 | 1,242.8 | 1,377.6 | 1,104.2 | |
| 2 | | | 1,242.7 | 1,526.3 | 1,086.0 | |
| 3 | | | | 1,404.3 | 884.8 | |
| 4 | | | | | 521.0 | |
| TOTAL | 157.58 | 488.96 | 3736.60 | 5816.14 | 4713.88 | 24.60 |

| LEVEL | NEW BUILT AREA (EXC. BALCONIES) |
|-------|---------------------------------|
| 0 | 4,479.9 |
| 1 | 3,792.9 |
| 2 | 3,855.0 |
| 3 | 2,289.1 |
| 4 | 521.0 |
| TOTAL | 14,937.8 |

| DEMOLITION (SQ.M) | |
|--------------------|---------|
| | AREA |
| EXISTING STRUCTURE | 1,582.0 |
| DEMOLITION | 1,083.0 |

| APARTMENT MIX | | |
|----------------|--------|------|
| TYPE | NUMBER | % |
| 1 BED 2 PERSON | 70 | 50 |
| 2 BED 3 PERSON | 12 | 8.6 |
| 2 BED 4 PERSON | 57 | 40.7 |
| 3 BED 5 PERSON | 1 | 0.7 |
| TOTAL | 140 | 100 |

| APARTMENT FLOOR AREAS & STANDARDS (SQ.M) | | |
|--|---------|-------|
| BUILDING | AREA | % |
| BUILDING C | 2,354.0 | |
| BUILDING D | 3,549.2 | |
| BUILDING E | 2,960.7 | |
| TOTAL | 8,863.9 | |
| NUMBER OF UNITS GREATER THAN 10% OVER MIN. AREA refer to Housing Quality Assesment | 78 | 55.7% |

| ASPECT RATIO | | |
|--------------|-----|-------|
| ASPECT | NO | % |
| DUAL | 57 | 40.7% |
| SOUTH | 31 | 22.1% |
| EAST/WEST | 28 | 20.0% |
| NORTH | 24 | 17.1% |
| | 140 | |

| COMMUNAL AREA (SQ.M) | |
|----------------------|-------|
| LOCATION | AREA |
| LOBBY | 34.1 |
| CONCIERGE | 8.9 |
| LOUNGE | 79.2 |
| FUNCTION ROOM | 70.1 |
| LIBRARY | 121.7 |
| WORKSPACE | 180.9 |
| ROOF TERRACE 1 | 123.0 |
| ROOF TERRACE 2 | 180.0 |
| RESIDENT'S GYM | 95.6 |
| RESIDENTS SUN LOUNGE | 65.0 |
| TOTAL | 958.5 |

| RESIDENTS AMENITY | | | |
|------------------------------|-----------|-------------------------------|--|
| TYPE | APART NO. | MIN. AMENITY AREA / APT (sqm) | TOTAL PUBLIC AMENITY AREA REQUIRED (sqm) |
| STUDIO | 0 | 4.0 | 0.0 |
| 1 BED 2 PERSON | 70 | 5.0 | 350.0 |
| 2 BED 3 PERSON | 12 | 6.0 | 72.0 |
| 2 BED 4 PERSON | 57 | 7.0 | 399.0 |
| 3 BED 5 PERSON | 1 | 9.0 | 9.0 |
| | 140 | | 830.0 |
| RESIDENTIAL AMENITY ACHIEVED | | | 2,563.0 |
| PUBLIC OPEN SPACE | | | 27,136.0 |
| PARK | | | 24,520.0 |
| STREETS AND SQUARES | | | 1,072.0 |
| PUBLIC LINK TO GREENWAY | | | 1,544.0 |
| CRECHE | | | (SQ.M) |
| | | | AREA |
| CRECHE AREA | | | 236.0 |
| CRECHE OUTDOOR PLAY | | | 225.0 |

| PARKING FACILITIES (NO.) (%) | | |
|------------------------------|--------|-------|
| TYPE | NUMBER | |
| RESIDENT'S CAR PARK | 54 | 38.6% |
| + CRECHE DROP OFF | 4 | |
| MOTORBIKE SPACES | 5 | |
| RESIDENTS BIKE STANDS | 230 | |
| VISITORS BIKE STANDS | 100 | |

THE FARM DETAILED AREA BREAKDOWN

total gross area: 14,937.8 (sq.m)

*Balance (all risers, shafts , internal walls , external walls)

| LEVEL 0 | | | | 4479.9 | | | |
|-----------------|--------|-----------------|--------|-----------------|--------|---------------------|-------|
| BUILDING C | | BUILDING D | | BUILDING E | | BUILDING A+B+SUB | |
| Apartments net | 677.4 | Apartments net | 481.0 | Apartments net | 524.2 | Function room | 79.1 |
| Circulation net | 121.0 | Circulation net | 45.3 | Circulation net | 48.3 | Sun Lounge | 65.0 |
| Stairs core net | 86.4 | Stairs core net | 133.0 | Stairs core net | 154.7 | Workspace | 180.9 |
| Plant | 36.7 | Plant | 56.9 | Plant | 56.7 | Library | 121.7 |
| Bins | 37.4 | Bins | 62.7 | Bins | 24.6 | Subsation | 19.8 |
| Bikes | 68.3 | Bikes | 133.2 | Gym | 95.6 | | |
| | | Communal | 145.3 | Substation | 23.4 | | |
| Net | 1027.1 | Creche | 236.0 | Net | 927.5 | Net | 466.5 |
| | | Net | 1293.4 | | | | |
| *Balance | 224.0 | *Balance | 214.5 | *Balance | 190.5 | *Balance | 136.4 |
| Gross | 1251.1 | Gross | 1508.0 | Gross | 1118.0 | Gross | 602.9 |
| LEVEL 1 | | | | 3792.9 | | | |
| BUILDING C | | BUILDING D | | BUILDING E | | BUILDING A+B | |
| Apartments net | 838.3 | Apartments net | 985.8 | Apartments net | 773.7 | | |
| Circulation net | 91.5 | Circulation net | 76.2 | Circulation net | 58.2 | Function room(void) | 0.0 |
| Stairs core net | 87.1 | Stairs core net | 81.3 | Stairs core net | 91.9 | Library(void) | 0.0 |
| Net | 1016.9 | Net | 1143.2 | Net | 923.8 | Net | 0.0 |
| *Balance | 225.9 | *Balance | 234.4 | *Balance | 180.4 | *Balance | 68.3 |
| Gross | 1242.8 | Gross | 1377.6 | Gross | 1104.2 | Gross | 68.3 |
| LEVEL2 | | | | 3855.0 | | | |
| BUILDING C | | BUILDING D | | BUILDING E | | | |
| Apartments net | 838.3 | Apartments net | 1091.3 | Apartments net | 758.3 | | |
| Circulation net | 91.6 | Circulation net | 104.4 | Circulation net | 58.2 | | |
| Stairs core net | 87.2 | Stairs core net | 79.2 | Stairs core net | 91.9 | | |
| Net | 1017.1 | Net | 1274.9 | Net | 908.4 | | |
| *Balance | 225.6 | *Balance | 251.5 | *Balance | 177.6 | | |
| Gross | 1242.7 | Gross | 1526.3 | Gross | 1086.0 | | |

LEVEL3

2289.07

| BUILDING D | | | BUILDING E | | |
|-----------------|-------|--------|-----------------|-------|-------|
| Apartments net | 991.1 | | Apartments net | 560.8 | |
| | | | Store | 30.6 | |
| Circulation net | 42.7 | | Circulation net | 100.1 | |
| Stairs core net | 91.9 | | Stairs core net | 79.3 | |
| | Net | 1125.8 | | Net | 770.8 |
| * Balance | 278.5 | | * Balance | 114.0 | |
| | Gross | 1404.3 | | Gross | 884.8 |

LEVEL4

520.99

| BUILDING E | | |
|-----------------|-------|-------|
| Apartments net | 343.7 | |
| Balconies net | | |
| Circulation net | 34.1 | |
| Stairs core net | 45.0 | |
| | Net | 422.8 |
| * Balance | 98.2 | |
| | Gross | 521.0 |

Housing Quality Assessment

HOUSING QUALITY ASSESSMENT – BUILDING C

| BUILDING | UNIT NUMBER | FLOOR LEVEL | UNIT REFERENCE | UNIT DESCRIPTION | APARTMENT TYPE | UNIT AREA REQUIRED (m2) | UNIT AREA ACHIEVED (m2) | DUAL ASPECT | ABOVE 10% OF MIN AREA | BEDROOM | BEDSPACES | CEILING HEIGHT | AGGREGATE BEDROOM AREAS REQUIRED (m2) | AGGREGATE BEDROOM AREA ACHIEVED (m2) | MAIN LIVING ROOM WIDTH ACHIEVED (m) | KITCHEN/ LIVING/ DINING AREA REQUIRED (m2) | KITCHEN/ LIVING/ DINING AREA ACHIEVED (m2) | AGGREGATE STORAGE AREA REQUIRED (m2) | AGGREGATE STORAGE AREA ACHIEVED (m2) | PRIVATE AMENITY SPACE REQUIRED (m2) | PRIVATE AMENITY SPACE ACHIEVED (m2) |
|------------|-------------|-------------|----------------|------------------------|----------------|---------------------------------------|-------------------------|-------------|-----------------------|---------|-----------|----------------|--|---|--|---|---|---|---|--|--|
| C | 1 | 0 | C.0.1 | 1 BEDROOM APARTMENT 2P | 1B2P B | 45.0 | 45.40 | | | 1 | 2 | 2.7 | 11.4 | 11.4 | 5.1 | 23.0 | 24.4 | 3.0 | 3.6 | 5.0 | 5.1 |
| C | 2 | 0 | C.0.2 | 2 BEDROOM APARTMENT 4P | 2B4P T | 73.0 | 73.30 | YES | | 2 | 4 | 2.7 | 24.4 | 25.4 | 5 | 30.0 | 32.0 | 6.0 | 6.1 | 7.0 | 8.8 |
| C | 3 | 0 | C.0.3 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 4 | 0 | C.0.4 | 2 BEDROOM APARTMENT 4P | 2B4P S | 73.0 | 79.60 | YES | | 2 | 4 | 2.7 | 24.4 | 24.8 | 4.9 | 30.0 | 30.0 | 6.0 | 6.6 | 7.0 | 7.1 |
| C | 5 | 0 | C.0.5 | 2 BEDROOM APARTMENT 3P | 2B3P L | 63.0 | 65.30 | YES | | 2 | 3 | 2.7 | 18.5 | 24.8 | 4.55 | 28.0 | 28.2 | 5.0 | 5.1 | 6.0 | 6.4 |
| C | 6 | 0 | C.0.6 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 7 | 0 | C.0.7 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 8 | 0 | C.0.8 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 9 | 0 | C.0.9 | 2 BEDROOM APARTMENT 4P | 2B4P P | 73.0 | 93.40 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 34.9 | 3.6 | 30.0 | 33.2 | 6.0 | 8.3 | 7.0 | 7.5 |
| C | 10 | 0 | C.0.10 | 2 BEDROOM APARTMENT 4P | 2B4P R | 73.0 | 73.80 | YES | | 2 | 4 | 2.7 | 24.4 | 25.3 | 3.6 | 30.0 | 30.5 | 6.0 | 6.9 | 7.0 | 7.1 |
| | | | | | | | 677.40 | | | | | | | | | | | | | | 66.6 |
| C | 11 | 1 | C.1.11 | 1 BEDROOM APARTMENT 2P | 1B2P B | 45.0 | 45.40 | | | 1 | 2 | 2.7 | 11.4 | 11.4 | 5.1 | 23.0 | 24.4 | 3.0 | 3.6 | 5.0 | 5.1 |
| C | 12 | 1 | C.1.12 | 2 BEDROOM APARTMENT 4P | 2B4P W | 73.0 | 73.30 | YES | | 2 | 4 | 2.7 | 24.4 | 25 | 5 | 30.0 | 30.0 | 6.0 | 6.1 | 7.0 | 8.7 |
| C | 13 | 1 | C.1.13 | 2 BEDROOM APARTMENT 4P | 2B4P T | 73.0 | 73.30 | YES | | 2 | 4 | 2.7 | 24.4 | 25.4 | 5 | 30.0 | 32.0 | 6.0 | 6.1 | 7.0 | 8.8 |
| C | 14 | 1 | C.1.14 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 15 | 1 | C.1.15 | 2 BEDROOM APARTMENT 4P | 2B4P S | 73.0 | 79.60 | YES | | 2 | 4 | 2.7 | 24.4 | 24.8 | 4.9 | 30.0 | 30.0 | 6.0 | 6.6 | 7.0 | 7.1 |
| C | 16 | 1 | C.1.16 | 2 BEDROOM APARTMENT 3P | 2B3P L | 63.0 | 65.30 | YES | | 2 | 3 | 2.7 | 18.5 | 24.8 | 4.55 | 28.0 | 28.2 | 5.0 | 5.1 | 6.0 | 6.4 |
| C | 17 | 1 | C.1.17 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 18 | 1 | C.1.18 | 2 BEDROOM APARTMENT 4P | 2B4P U | 73.0 | 87.60 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 27.5 | 4.4 | 30.0 | 31.0 | 6.0 | 7.6 | 7.0 | 7.2 |
| C | 19 | 1 | C.1.19 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 20 | 1 | C.1.20 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 21 | 1 | C.1.21 | 2 BEDROOM APARTMENT 4P | 2B4P P | 73.0 | 93.40 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 34.9 | 3.6 | 30.0 | 33.2 | 6.0 | 8.3 | 7.0 | 7.5 |
| C | 22 | 1 | C.1.22 | 2 BEDROOM APARTMENT 4P | 2B4P R | 73.0 | 73.80 | YES | | 2 | 4 | 2.7 | 24.4 | 25.3 | 3.6 | 30.0 | 30.5 | 6.0 | 6.9 | 7.0 | 7.1 |
| | | | | | | | 838.30 | | | | | | | | | | | | | | 82.5 |
| C | 23 | 2 | C.2.23 | 1 BEDROOM APARTMENT 2P | 1B2P B | 45.0 | 45.40 | | | 1 | 2 | 2.5 | 11.4 | 11.4 | 5.1 | 23.0 | 24.4 | 3.0 | 3.6 | 5.0 | 5.1 |
| C | 24 | 2 | C.2.24 | 2 BEDROOM APARTMENT 4P | 2B4P W | 73.0 | 73.30 | YES | | 2 | 4 | 2.5 | 24.4 | 25 | 5 | 30.0 | 30.0 | 6.0 | 6.1 | 7.0 | 8.7 |
| C | 25 | 2 | C.2.25 | 2 BEDROOM APARTMENT 4P | 2B4P T | 73.0 | 73.30 | YES | | 2 | 4 | 2.5 | 24.4 | 25.4 | 5 | 30.0 | 32.0 | 6.0 | 6.1 | 7.0 | 8.8 |
| C | 26 | 2 | C.2.26 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.5 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 27 | 2 | C.2.27 | 2 BEDROOM APARTMENT 4P | 2B4P S | 73.0 | 79.60 | YES | | 2 | 4 | 2.5 | 24.4 | 24.8 | 4.9 | 30.0 | 30.0 | 6.0 | 6.6 | 7.0 | 7.1 |
| C | 28 | 2 | C.2.28 | 2 BEDROOM APARTMENT 3P | 2B3P L | 63.0 | 65.30 | YES | | 2 | 3 | 2.5 | 18.5 | 24.8 | 4.55 | 28.0 | 28.2 | 5.0 | 5.1 | 6.0 | 6.4 |
| C | 29 | 2 | C.2.29 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.5 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| C | 30 | 2 | C.2.30 | 2 BEDROOM APARTMENT 4P | 2B4P U | 73.0 | 87.60 | YES | 1 | 2 | 4 | 2.5 | 24.4 | 27.5 | 4.4 | 30.0 | 31.0 | 6.0 | 7.6 | 7.0 | 7.2 |
| C | 31 | 2 | C.2.31 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.5 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 32 | 2 | C.2.32 | 2 BEDROOM APARTMENT 4P | 2B4P N | 73.0 | 78.20 | YES | | 2 | 4 | 2.5 | 24.4 | 25.9 | 4.2 | 30.0 | 31.6 | 6.0 | 7.2 | 7.0 | 7.2 |
| C | 33 | 2 | C.2.33 | 2 BEDROOM APARTMENT 4P | 2B4P P | 73.0 | 93.40 | YES | 1 | 2 | 4 | 2.5 | 24.4 | 34.9 | 3.6 | 30.0 | 33.2 | 6.0 | 8.3 | 7.0 | 7.5 |
| C | 34 | 2 | C.2.34 | 2 BEDROOM APARTMENT 4P | 2B4P R | 73.0 | 73.80 | YES | | 2 | 4 | 2.5 | 24.4 | 25.3 | 3.6 | 30.0 | 30.5 | 6.0 | 6.9 | 7.0 | 7.1 |
| | | | | | | | 838.30 | | | | | | | | | | | | | | 82.5 |
| 34 apartm. | | | | | | 9-1 BED 2P, 3- 2 BED 3P, 22- 2 BED 4P | | 2354.00 | 25 | 5 | 59 | 115 | | | | | | | | | 231.6 |

HOUSING QUALITY ASSESSMENT – BUILDING D

| BUILDING | UNIT NUMBER | FLOOR LEVEL | UNIT REFERENCE | UNIT DESCRIPTION | APARTMENT TYPE | UNIT AREA REQUIRED (m2) | UNIT AREA ACHIEVED (m2) | DUAL ASPECT | ABOVE 10% OF MIN AREA | BEDROOM | BEDSPACES | CEILING HEIGHT | AGGREGATE BEDROOM AREAS REQUIRED (m2) | AGGREGATE BEDROOM AREA ACHIEVED (m2) | MAIN LIVING ROOM WIDTH ACHIEVED (m) | KITCHEN/ LIVING/ DINING AREA REQUIRED (m2) | KITCHEN/ LIVING/ DINING AREA ACHIEVED (m2) | AGGREGATE STORAGE AREA REQUIRED (m2) | AGGREGATE STORAGE AREA ACHIEVED (m2) | PRIVATE AMENITY SPACE REQUIRED (m2) | PRIVATE AMENITY SPACE ACHIEVED (m2) |
|----------|-------------|-------------|----------------|------------------------|----------------|-------------------------|-------------------------|-------------|-----------------------|---------|-----------|----------------|---------------------------------------|--------------------------------------|-------------------------------------|--|--|--------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|
| D | 1 | 0 | D.0.1 | 1 BEDROOM APARTMENT 2P | 1B2P D | 45.0 | 49.60 | | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| D | 2 | 0 | D.0.2 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 3 | 0 | D.0.3 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 4 | 0 | D.0.4 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 5 | 0 | D.0.5 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 6 | 0 | D.0.6 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 7 | 0 | D.0.7 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 8 | 0 | D.0.8 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| | | | | | | 481.00 | | | | 49.1 | | | | | | | | | | | |
| D | 9 | 1 | D.1.9 | 2 BEDROOM APARTMENT 3P | 2B3P H | 63.0 | 63.50 | | | 2 | 3 | 2.7 | 18.5 | 23.1 | 3.6 | 28.0 | 28.1 | 5.0 | 5.1 | 6.0 | 6.3 |
| D | 10 | 1 | D.1.10 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 11 | 1 | D.1.11 | 1 BEDROOM APARTMENT 2P | 1B2P D | 45.0 | 50.00 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 11.9 | 3.65 | 23.0 | 24.4 | 3.0 | 3.8 | 5.0 | 7.1 |
| D | 12 | 1 | D.1.12 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| D | 13 | 1 | D.1.13 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 14 | 1 | D.1.14 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 15 | 1 | D.1.15 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 16 | 1 | D.1.16 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 17 | 1 | D.1.17 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 18 | 1 | D.1.18 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 2 | 4 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 19 | 1 | D.1.19 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 2 | 4 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 20 | 1 | D.1.20 | 2 BEDROOM APARTMENT 4P | 2B4P X | 73.0 | 85.80 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 28.6 | 5.5 | 30.0 | 32.7 | 6.0 | 8 | 7.0 | 12.2 |
| D | 21 | 1 | D.1.21 | 2 BEDROOM APARTMENT 3P | 2B3P I | 63.0 | 72.70 | YES | 1 | 2 | 3 | 2.7 | 18.5 | 24.9 | 3.6 | 28.0 | 28.5 | 5.0 | 7.1 | 6.0 | 6.1 |
| D | 22 | 1 | D.1.22 | 2 BEDROOM APARTMENT 4P | 2B4P M3 | 73.0 | 87.45 | | 1 | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.3 | 6.0 | 7.9 | 7.0 | 7.2 |
| D | 23 | 1 | D.1.23 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 24 | 1 | D.1.24 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| | | | | | | 985.75 | | | | 103.3 | | | | | | | | | | | |
| D | 25 | 2 | D.2.25 | 2 BEDROOM APARTMENT 3P | 2B3P H | 63.0 | 63.50 | | | 2 | 3 | 2.7 | 18.5 | 23.1 | 3.6 | 28.0 | 28.1 | 5.0 | 5.1 | 6.0 | 6.3 |
| D | 26 | 2 | D.2.26 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 27 | 2 | D.2.27 | 1 BEDROOM APARTMENT 2P | 1B2P D | 45.0 | 50.00 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 11.9 | 3.65 | 23.0 | 24.4 | 3.0 | 3.8 | 5.0 | 7.1 |
| D | 28 | 2 | D.2.28 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| D | 29 | 2 | D.2.29 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 30 | 2 | D.2.30 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 31 | 2 | D.2.31 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 32 | 2 | D.2.32 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 33 | 2 | D.2.33 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 34 | 2 | D.2.34 | 1 BEDROOM APARTMENT 2P | 1B2P F1 | 45.0 | 59.80 | | 1 | 1 | 2 | 2.7 | 11.4 | 14.4 | 4.5 | 23.0 | 33.5 | 3.0 | 4.2 | 5.0 | 5.7 |
| D | 35 | 2 | D.2.35 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |

HOUSING QUALITY ASSESSMENT – BUILDING D CONTINUED

| BUILDING | UNIT NUMBER | FLOOR LEVEL | UNIT REFERENCE | UNIT DESCRIPTION | APARTMENT TYPE | UNIT AREA REQUIRED (m2) | UNIT AREA ACHIEVED (m2) | DUAL ASPECT | ABOVE 10% OF MIN AREA | BEDROOM | BEDSPACES | CEILING HEIGHT | AGGREGATE BEDROOM AREAS REQUIRED (m2) | AGGREGATE BEDROOM AREA ACHIEVED (m2) | MAIN LIVING ROOM WIDTH ACHIEVED (m) | KITCHEN/ LIVING/ DINING AREA REQUIRED (m2) | KITCHEN/ LIVING/ DINING AREA ACHIEVED (m2) | AGGREGATE STORAGE AREA REQUIRED (m2) | AGGREGATE STORAGE AREA ACHIEVED (m2) | PRIVATE AMENITY SPACE REQUIRED (m2) | PRIVATE AMENITY SPACE ACHIEVED (m2) |
|----------|-------------|-------------|----------------|--|----------------|-------------------------|-------------------------|-------------|-----------------------|---------|-----------|----------------|---------------------------------------|--------------------------------------|-------------------------------------|--|--|--------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|
| D | 36 | 2 | D.2.36 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 37 | 2 | D.2.37 | 2 BEDROOM APARTMENT 4P | 2B4P X | 73.0 | 85.80 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 28.6 | 5.5 | 30.0 | 32.7 | 6.0 | 8 | 7.0 | 12.2 |
| D | 38 | 2 | D.2.38 | 2 BEDROOM APARTMENT 3P | 2B3P I | 63.0 | 72.70 | YES | 1 | 2 | 3 | 2.7 | 18.5 | 24.9 | 3.6 | 28.0 | 28.5 | 5.0 | 7.1 | 6.0 | 6.1 |
| D | 39 | 2 | D.2.39 | 1 BEDROOM APARTMENT 2P | 1B2P F | 45.0 | 59.30 | | 1 | 1 | 2 | 2.7 | 11.4 | 12.3 | 4.5 | 23.0 | 35.4 | 3.0 | 3.9 | 5.0 | 5.7 |
| D | 40 | 2 | D.2.40 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 73.90 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.1 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 41 | 2 | D.2.41 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 42 | 2 | D.2.42 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| | | | | | | | 1091.30 | | | | | | | | | | | | | | 114.7 |
| D | 43 | 3 | D.3.43 | 2 BEDROOM APARTMENT 3P | 2B3P H | 63.0 | 63.50 | | | 2 | 3 | 2.7 | 18.5 | 23.1 | 3.6 | 28.0 | 28.1 | 5.0 | 5.1 | 6.0 | 6.3 |
| D | 44 | 3 | D.3.44 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | YES | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 45 | 3 | D.3.45 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 49.50 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 12.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3.3 | 5.0 | 5.1 |
| D | 46 | 3 | D.3.46 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 47 | 3 | D.3.47 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 48 | 3 | D.3.48 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 49 | 3 | D.3.49 | 2 BEDROOM APARTMENT 4P | 2B4P M2 | 73.0 | 80.30 | | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 3.85 | 30.0 | 32.8 | 6.0 | 6 | 7.0 | 7.2 |
| D | 50 | 3 | D.3.50 | 1 BEDROOM APARTMENT 2P | 1B2P F1 | 45.0 | 59.80 | | 1 | 1 | 2 | 2.7 | 11.4 | 14.4 | 4.5 | 23.0 | 33.5 | 3.0 | 4.2 | 5.0 | 5.7 |
| D | 51 | 3 | D.3.51 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 52 | 3 | D.3.52 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| D | 53 | 3 | D.3.53 | 2 BEDROOM APARTMENT 4P | 2B4P X | 73.0 | 85.80 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 28.6 | 5.5 | 30.0 | 32.7 | 6.0 | 8 | 7.0 | 12.2 |
| D | 54 | 3 | D.3.54 | 2 BEDROOM APARTMENT 3P | 2B3P I | 63.0 | 72.70 | YES | 1 | 2 | 3 | 2.7 | 18.5 | 24.9 | 3.6 | 28.0 | 28.5 | 5.0 | 7.1 | 6.0 | 6.1 |
| D | 55 | 3 | D.3.55 | 1 BEDROOM APARTMENT 2P | 1B2P F | 45.0 | 59.30 | | 1 | 1 | 2 | 2.7 | 11.4 | 12.3 | 4.5 | 23.0 | 35.4 | 3.0 | 3.9 | 5.0 | 5.7 |
| D | 56 | 3 | D.3.56 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 73.90 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.1 | 6.0 | 6.1 | 7.0 | 7.2 |
| D | 57 | 3 | D.3.57 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| D | 58 | 3 | D.3.58 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| | | | | | | | 991.10 | | | | | | | | | | | | | | 100.5 |
| | 58 apartm. | | | 34- 1 BED 2P, 6-2 BED 3P, 18- 2 BED 4P | | | 3549.15 | 12 | 42 | 84 | 162 | | | | | | | | | | 367.6 |

HOUSING QUALITY ASSESSMENT – BUILDING E

| BUILDING | UNIT NUMBER | FLOOR LEVEL | UNIT REFERENCE | UNIT DESCRIPTION | APARTMENT TYPE | UNIT AREA REQUIRED (m2) | UNIT AREA ACHIEVED (m2) | DUAL ASPECT | ABOVE 10% OF MIN AREA | BEDROOM | BEDSPACES | CEILING HEIGHT | AGGREGATE BEDROOM AREAS REQUIRED (m2) | AGGREGATE BEDROOM AREA ACHIEVED (m2) | MAIN LIVING ROOM WIDTH ACHIEVED (m) | KITCHEN/ LIVING/ DINING AREA REQUIRED (m2) | KITCHEN/ LIVING/ DINING AREA ACHIEVED (m2) | AGGREGATE STORAGE AREA REQUIRED (m2) | AGGREGATE STORAGE AREA ACHIEVED (m2) | PRIVATE AMENITY SPACE REQUIRED (m2) | PRIVATE AMENITY SPACE ACHIEVED (m2) |
|----------|-------------|-------------|----------------|------------------------|----------------|-------------------------|-------------------------|-------------|-----------------------|---------|-----------|----------------|---------------------------------------|--------------------------------------|-------------------------------------|--|--|--------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|
| E | 1 | 0 | E.0.1 | 1 BEDROOM APARTMENT 2P | 1B2P E1 | 45.0 | 49.50 | | 1 | 1 | 2 | 2.7 | 11.4 | 15.2 | 3.6 | 23.0 | 25.2 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 2 | 0 | E.0.2 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 3 | 0 | E.0.3 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 4 | 0 | E.0.4 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 5 | 0 | E.0.5 | 2 BEDROOM APARTMENT 4P | 2B4P O1 | 73.0 | 84.20 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.3 | 4.65 | 30.0 | 36.7 | 6.0 | 6.2 | 7.0 | 7.2 |
| E | 6 | 0 | E.0.6 | 1 BEDROOM APARTMENT 2P | 1B2P C | 45.0 | 45.80 | YES | | 1 | 2 | 2.7 | 11.4 | 11.4 | 3.65 | 23.0 | 23.1 | 3.0 | 3.1 | 5.0 | 7.1 |
| E | 7 | 0 | E.0.7 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| E | 8 | 0 | E.0.8 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| E | 9 | 0 | E.0.9 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 73.90 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.1 | 6.0 | 6.1 | 7.0 | 7.2 |
| | | | | | | | 524.20 | | | | | | | | | | | | | | 54.2 |
| E | 10 | 1 | E.1.10 | 1 BEDROOM APARTMENT 2P | 1B2P E1 | 45.0 | 49.50 | | 1 | 1 | 2 | 2.7 | 11.4 | 15.2 | 3.6 | 23.0 | 25.2 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 11 | 1 | E.1.11 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 12 | 1 | E.1.12 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 13 | 1 | E.1.13 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 14 | 1 | E.1.14 | 2 BEDROOM APARTMENT 4P | 2B4P O1 | 73.0 | 84.20 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.3 | 4.65 | 30.0 | 36.7 | 6.0 | 6.2 | 7.0 | 7.2 |
| E | 15 | 1 | E.1.15 | 1 BEDROOM APARTMENT 2P | 1B2P C | 45.0 | 45.80 | YES | | 1 | 2 | 2.7 | 11.4 | 11.4 | 3.65 | 23.0 | 23.1 | 3.0 | 3.1 | 5.0 | 7.1 |
| E | 16 | 1 | E.1.16 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 74.30 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.5 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 17 | 1 | E.1.17 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| E | 18 | 1 | E.1.18 | 1 BEDROOM APARTMENT 2P | 1B2P A | 45.0 | 45.10 | | | 1 | 2 | 2.7 | 11.4 | 11.5 | 3.65 | 23.0 | 23.0 | 3.0 | 3 | 5.0 | 5.1 |
| E | 19 | 1 | E.1.19 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 73.90 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.1 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 20 | 1 | E.1.20 | 1 BEDROOM APARTMENT 2P | 1B2P E | 45.0 | 45.30 | | | 1 | 2 | 2.7 | 11.4 | 13.8 | 3.6 | 23.0 | 23.0 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 21 | 1 | E.1.21 | 2 BEDROOM APARTMENT 4P | 2B4P O | 73.0 | 80.30 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.05 | 30.0 | 32.8 | 6.0 | 6.9 | 7.0 | 7.2 |
| E | 22 | 1 | E.1.22 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| | | | | | | | 773.70 | | | | | | | | | | | | | | 80.8 |
| E | 23 | 2 | E.2.23 | 1 BEDROOM APARTMENT 2P | 1B2P E1 | 45.0 | 49.50 | | 1 | 1 | 2 | 2.7 | 11.4 | 15.2 | 3.6 | 23.0 | 25.2 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 24 | 2 | E.2.24 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 25 | 2 | E.2.25 | 2 BEDROOM APARTMENT 4P | 2B4P M1 | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 28.5 | 3.85 | 30.0 | 33.0 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 26 | 2 | E.2.26 | 1 BEDROOM APARTMENT 2P | 1B2P A1 | 45.0 | 50.10 | | 1 | 1 | 2 | 2.7 | 11.4 | 13.2 | 3.65 | 23.0 | 25.5 | 3.0 | 3 | 5.0 | 5.1 |
| E | 27 | 2 | E.2.27 | 2 BEDROOM APARTMENT 4P | 2B4P O1 | 73.0 | 84.20 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.3 | 4.65 | 30.0 | 36.7 | 6.0 | 6.2 | 7.0 | 7.2 |
| E | 28 | 2 | E.2.28 | 1 BEDROOM APARTMENT 2P | 1B2P C | 45.0 | 45.80 | YES | | 1 | 2 | 2.7 | 11.4 | 11.4 | 3.65 | 23.0 | 23.1 | 3.0 | 3.1 | 5.0 | 7.1 |
| E | 29 | 2 | E.2.29 | 2 BEDROOM APARTMENT 3P | 2B3P J | 63.0 | 68.70 | YES | | 2 | 3 | 2.7 | 18.5 | 24 | 4 | 28.0 | 28.5 | 5.0 | 5.25 | 6.0 | 11.4 |
| E | 30 | 2 | E.2.30 | 2 BEDROOM APARTMENT 4P | 2B4P Y | 73.0 | 80.40 | | 1 | 2 | 4 | 2.7 | 24.4 | 24.7 | 5.8 | 30.0 | 33.3 | 6.0 | 6.8 | 7.0 | 24.2 |
| E | 31 | 2 | E.2.31 | 2 BEDROOM APARTMENT 4P | 2B4P M | 73.0 | 73.90 | | | 2 | 4 | 2.7 | 24.4 | 24.6 | 3.85 | 30.0 | 30.1 | 6.0 | 6.1 | 7.0 | 7.2 |
| E | 32 | 2 | E.2.32 | 1 BEDROOM APARTMENT 2P | 1B2P E | 45.0 | 45.30 | | | 1 | 2 | 2.7 | 11.4 | 13.8 | 3.6 | 23.0 | 23.0 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 33 | 2 | E.2.33 | 2 BEDROOM APARTMENT 4P | 2B4P O | 73.0 | 80.30 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.05 | 30.0 | 32.8 | 6.0 | 6.9 | 7.0 | 7.2 |
| E | 34 | 2 | E.2.34 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| | | | | | | | 758.30 | | | | | | | | | | | | | | 99 |

HOUSING QUALITY ASSESSMENT – BUILDING E

| BUILDING | UNIT NUMBER | FLOOR LEVEL | UNIT REFERENCE | UNIT DESCRIPTION | APARTMENT TYPE | UNIT AREA REQUIRED (m2) | UNIT AREA ACHIEVED (m2) | DUAL ASPECT | ABOVE 10% OF MIN AREA | BEDROOM | BEDSPACES | CEILING HEIGHT | AGGREGATE BEDROOM AREAS REQUIRED (m2) | AGGREGATE BEDROOM AREA ACHIEVED (m2) | MAIN LIVING ROOM WIDTH ACHIEVED (m) | KITCHEN/ LIVING/ DINING AREA REQUIRED (m2) | KITCHEN/ LIVING/ DINING AREA ACHIEVED (m2) | AGGREGATE STORAGE AREA REQUIRED (m2) | AGGREGATE STORAGE AREA ACHIEVED (m2) | PRIVATE AMENITY SPACE REQUIRED (m2) | PRIVATE AMENITY SPACE ACHIEVED (m2) |
|----------|-------------|-------------|--|------------------------|----------------|-------------------------|-------------------------|-------------|-----------------------|---------|-----------|----------------|--|---|--|---|---|---|---|--|--|
| E | 35 | 3 | E.3.35 | 1 BEDROOM APARTMENT 2P | 1B2P E1 | 45.0 | 49.50 | | 1 | 1 | 2 | 2.7 | 11.4 | 15.2 | 3.6 | 23.0 | 25.2 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 36 | 3 | E.3.36 | 2 BEDROOM APARTMENT 3P | 2B3P K | 63.0 | 69.90 | YES | 1 | 2 | 3 | 2.7 | 18.5 | 23.8 | 4.15 | 28.0 | 28.6 | 5.0 | 5.15 | 7.0 | 10.6 |
| E | 37 | 3 | E.3.37 | 2 BEDROOM APARTMENT 4P | 2B4P O1 | 73.0 | 73.00 | YES | | 2 | 4 | 2.7 | 24.4 | 24.5 | 4.9 | 30.0 | 30.0 | 6.0 | 6 | 7.0 | 17.2 |
| E | 38 | 3 | E.3.38 | 3 BEDROOM APARTMENT 5P | 3B5P Z | 90.0 | 106.30 | YES | 1 | 3 | 5 | 2.7 | 31.5 | 33.9 | 6.4 | 34.0 | 41.2 | 9.0 | 9.7 | 9.0 | 14.7 |
| E | 39 | 3 | E.3.39 | 2 BEDROOM APARTMENT 4P | 2B4P V | 73.0 | 86.90 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.8 | 3.85 | 30.0 | 37.6 | 6.0 | 7.8 | 7.0 | 11.9 |
| E | 40 | 3 | E.3.40 | 1 BEDROOM APARTMENT 2P | 1B2P E | 45.0 | 45.30 | | | 1 | 2 | 2.7 | 11.4 | 13.8 | 3.6 | 23.0 | 23.0 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 41 | 3 | E.3.41 | 2 BEDROOM APARTMENT 4P | 2B4P O | 73.0 | 80.30 | YES | 1 | 2 | 4 | 2.7 | 24.4 | 25.9 | 4.05 | 30.0 | 32.8 | 6.0 | 6.9 | 7.0 | 7.2 |
| E | 42 | 3 | E.3.42 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| | | | | | | | 560.80 | | | | | | | | | | | | | | 78.9 |
| E | 43 | 4 | E.4.43 | 1 BEDROOM APARTMENT 2P | 1B2P E1 | 45.0 | 49.50 | | 1 | 1 | 2 | 2.7 | 11.4 | 15.2 | 3.6 | 23.0 | 25.2 | 3.0 | 3.1 | 5.0 | 5.1 |
| E | 44 | 4 | E.4.44 | 2 BEDROOM APARTMENT 3P | 2B3P K | 63.0 | 69.90 | YES | 1 | 2 | 3 | 2.7 | 18.5 | 23.8 | 4.15 | 28.0 | 28.6 | 5.0 | 5.15 | 7.0 | 10.6 |
| E | 45 | 4 | E.4.45 | 1 BEDROOM APARTMENT 2P | 1B2P G | 45.0 | 49.80 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 11.7 | 4.6 | 23.0 | 25.5 | 3.0 | 3.2 | 5.0 | 7.8 |
| E | 46 | 4 | E.4.46 | 1 BEDROOM APARTMENT 2P | 1B2P G1 | 45.0 | 49.80 | | 1 | 1 | 2 | 2.7 | 11.4 | 11.7 | 4.35 | 23.0 | 25.5 | 3.0 | 3.2 | 5.0 | 12.4 |
| E | 47 | 4 | E.4.47 | 2 BEDROOM APARTMENT 4P | 2B4P Y | 73.0 | 75.10 | YES | | 2 | 4 | 2.7 | 24.4 | 24.5 | 3.75 | 30.0 | 30.5 | 6.0 | 6.7 | 7.0 | 34.1 |
| E | 48 | 4 | E.4.48 | 1 BEDROOM APARTMENT 2P | 1B2P C1 | 45.0 | 49.60 | YES | 1 | 1 | 2 | 2.7 | 11.4 | 13 | 3.65 | 23.0 | 25.3 | 3.0 | 3.1 | 5.0 | 7.1 |
| | | | | | | | 343.70 | | | | | | | | | | | | | | 77.1 |
| | 48 apartm. | | 27-1 BED 2P, 3-2 BED 3P, 17-2 BED 4P, 1- 3BED 5P | | | | 2960.70 | 20 | 31 | | | | | | | | | | | | 390 |
| TOTAL | 140 | | 70 - 1 BED 2 P, 12- 2 BED 3P, 57- 2 BED 4P, 1-3 BED 5P | | | | 8863.85 | 57 | 78 | | | | | | | | | | | | 989.2 |

8863.85

989.2

APPENDIX

APPENDIX I - ROAD SAFETY RESPONSE

| Paragraph No. in Safety Audit Report | Problem accepted (yes/no) | Recommended measure accepted (yes/no) | Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted |
|--------------------------------------|---------------------------|---------------------------------------|---|
| 2.1.1 | Yes | Yes | To be completed to all areas in accordance with current standards and regulations applicable at detail design phase prior to implementation |
| 2.1.2 | No | Yes | Detailed public lighting plan designed by DKP per documentation issued -please refer to : PHASE 2 - THE FARM <i>DKP-M88-6600 ; 1P# Bessborough - Phase 2 - External lighting report</i> <i>DKP-M88-6601 ; 1P# Bessborough - Phase 2 - Appendix A - Illumination calculation report</i> <i>DKP-M88-6602 ; 1P# Bessborough - Phase 2 - Appendix B - Illumination calculation report</i> |
| 2.1.3 | Yes | Yes | To be completed to all areas in accordance with current standards and regulations applicable at detail design phase prior to implementation |
| 2.1.4 | No | Yes | Full drainage proposals submitted as part of application per documentation submitted JB Barry Consulting Engineers -ref: THE FARM PHASE – PHASE 2 <i>21207-JBB-PH2-XX-DR-C-04002_Proposed_Drainage_Layout</i> |
| 2.1.5 | Yes | No | The locations mentioned for improvement are in third party private ownership and beyond the control of the applicant |

| Paragraph No. in Safety Audit Report | Problem accepted (yes/no) | Recommended measure accepted (yes/no) | Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted |
|--------------------------------------|---------------------------|---------------------------------------|---|
| 2.3.1 | Yes | Yes | Crossing provision added per recommendation . please refer drawing number: <i>SB-2020-107-200-FARM SITE LAYOUT PLAN</i> |
| 2.3.2 | Yes | Yes | Guard rail provided to push desire line further west - please refer drawing number: <i>SB-2020-107-200-FARM SITE LAYOUT PLAN</i> |
| 2.3.3 | Yes | Yes | Clear turning area provided to at cul de sac T junction further to south away from creche drop off for safety please refer drawing number: <i>SB-2020-107-200-FARM SITE LAYOUT PLAN</i> |
| 2.3.4 | Yes | Yes | This is a low trafficked area for service collection and emergency vehicle access where turning is facilitated at the T junction. please refer drawing number: <i>SB-2020-107-200-FARM SITE LAYOUT PLAN</i> |



FARM AREA PHOTOS



FARM AREA PHOTOS



FARM AREA PHOTOS





NO PARKING
CHILDREN AT
PLAY



PARK AREA PHOTOS



PARK AREA PHOTOS



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