

Part D Detailing The Buildings



View of Marketplace public realm

Part D Detailing The Buildings

10.0 Community



Community uses line the green buffer along the eastern boundary

Community - Key Principles

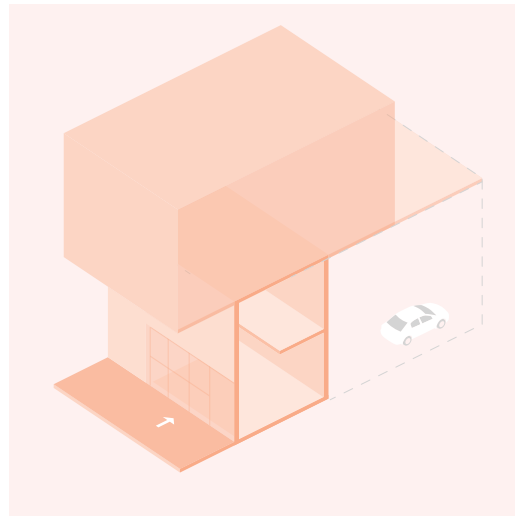
- The Community edge must respond sensitively to the existing residential community surrounding Galley Hill paying close attention to the existing materials, scale and character of the buildings. It should provide a welcoming, active frontage which will be beneficial to both new and existing users.
- Aesthetically the design should take inspiration from a more natural palette but still retain a connection to the industrial heritage of the area.
- Community infrastructure such as nurseries, GP surgeries, dentists and community centres should be accommodated at ground floor level linking directly to the existing Galley Hill communities.
- The provision should create new services or improve existing facilities within the area and should serve both the existing and emerging Northfleet communities.
- The community edge should encourage active travel and should be a secure, welcoming environment for both daytime and night-time journeys.



- Typology 1 - Community unit
- Typology 2 - Level mediator
- Typology 3 - Back of house

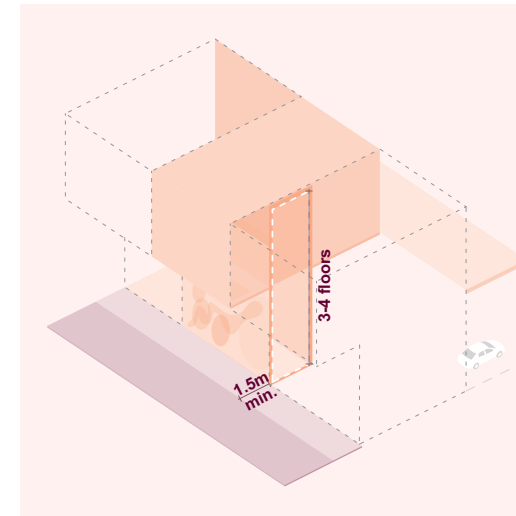
Part D Detailing The Buildings

10.1 Community - Building Typologies



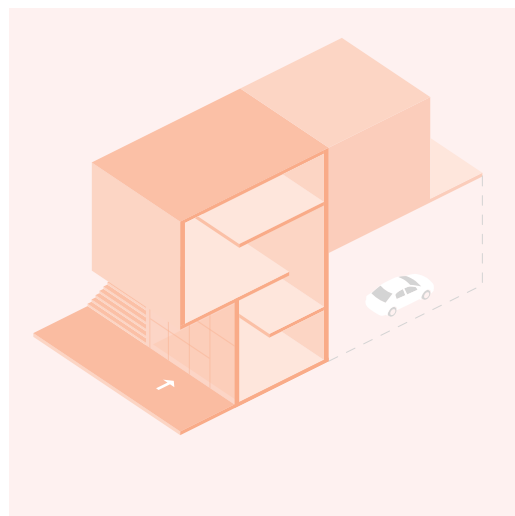
Typology 1 is located at the edge of the podium and houses community infrastructure such as GP surgery, nursery, community centre. It is a double storey unit with an additional single or double height back of house facade corresponding with the rear of the Marketplace units. These units are intended to create an active community focused edge to the podium, ensuring that the development carefully integrates the existing communities of Northfleet. Where possible units should be double height in order to create a larger active frontage and should provide a consistent canopy to protect the main pedestrian walkway.

TYOLOGY 1 - COMMUNITY UNIT



Typology 3 will be found along Galley Way in areas where plant or back of house servicing areas are required. This typology will present a blank facade with the likely incorporation of vents and extraction facilities. Although blank these units must present an architecturally considered façade, merging seamlessly with the adjacent typologies and taking on a consistent architectural language. Internal configuration will depend on the operational requirements for the facilities but all external requirements such as vents or extraction units should be hidden insofar as possible. These units can also be utilised as canvases for public art where appropriate.

TYOLOGY 3 - BACK OF HOUSE



Typology 2 correlates with typology 5 within the Marketplace bordering the main entrance steps to the Marketplace. These units provide an initial snapshot of the experience at podium level as well as consistent animation across the levels navigated by the steps. These units can extend to a maximum of 4 storeys depending on surrounding restrictions and must be highly cognisant of relating to both the Marketplace context and the existing Northfleet communities. These units can house either community or retail focused uses but must provide two-way activation at their base ensuring that the level change and ground floor walkway are addressed equally.

TYOLOGY 2 - LEVEL MEDIATOR

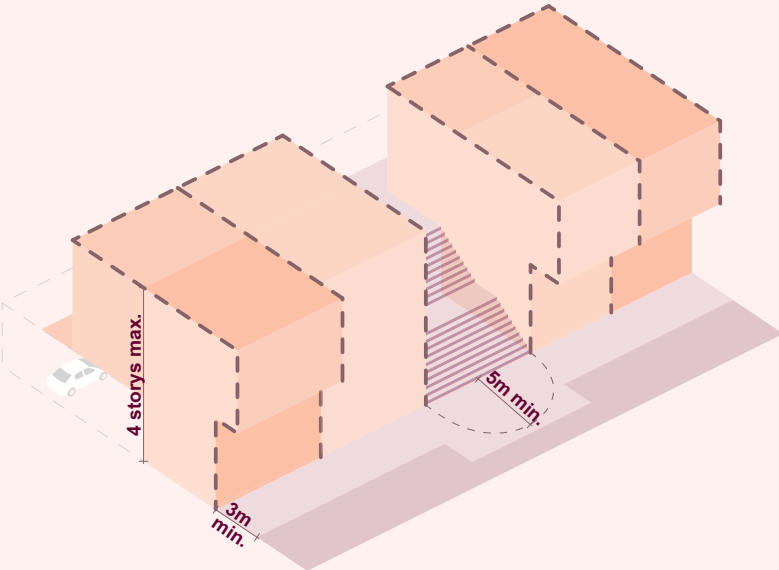


Part D Detailing The Buildings

10.2 Community - Critical Distances

Key Principles

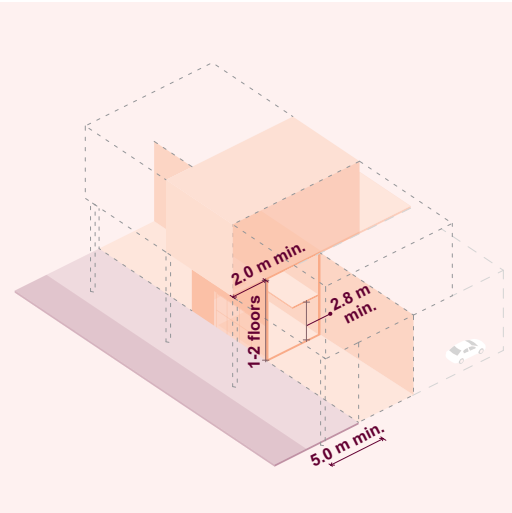
- Minimum distances can vary between building typologies and users. This design code provides a range for building/unit heights, widths and canopy depths as well as acceptable widths between building façades.
- The applied ranges have been developed in order to ensure that different areas exhibit specific characteristics and evoke particular experiences.
- Typology mix and applied critical distances will create a varied and interesting experience for the visitor as well as ensuring a certain level of quality for all external and internal spaces.
- Set out below are the key dimensions for the community edge and adjacent are more specific distances for each typology. These rules should be applied to the development of any relevant reserved matters application.



Maximum building height	4 storeys
Minimum pedestrian walkway depth	3m (min.)
Minimum radial landing zone at base of steps	5m
Maximum unit height	2 storeys

The community buildings along the residential edge provide activation to one of the key active travel routes for the site and critical distances must be carefully followed

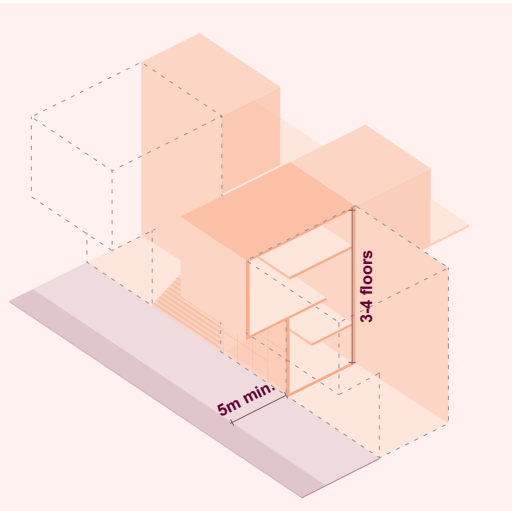
to ensure a high quality, safe environment. A consistent two-way cycle route and separate pedestrian pathway should be allowed for with planting and socialisation space provided in-between. The pedestrian zone where possible should be associated with the edge of the podium where canopies can be integrated to provide protection from the elements. The built form should not exceed 4 storeys and should directly correlate with the height of the podium retail. Where possible, units should be double storey to provide a larger area for activation along this edge.



TPOLOGY 1 - COMMUNITY UNIT

Minimum floor to ceiling height	: 2.8m
Minimum canopy depth	: 2m
Minimum pedestrian zone at entrance	: 5m

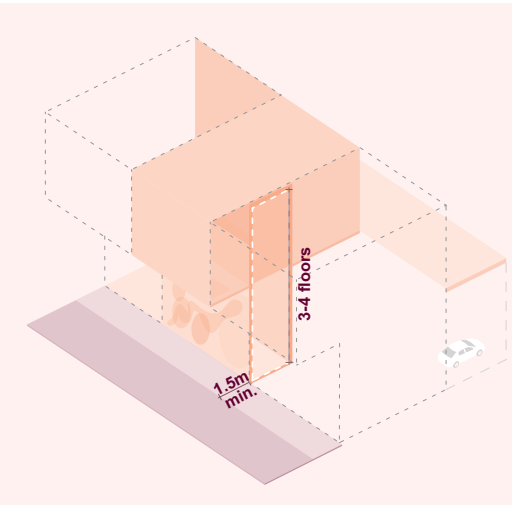
Typology 1 should ensure that community units are accompanied by a generous pedestrian zone particularly around facility entrances. Protection from the elements should be considered with the integration of a covered walkway or canopy along the length of the community space. The height of spaces should focus on health and well-being as well as correlating with the podium and retail spaces behind.



TPOLOGY 2 - LEVEL MEDIATOR

Minimum building height	: 3 storeys
Maximum building height	: 4 storeys
Minimum Distance between façades	: 10m
Minimum pedestrian landing zone	: 5m

Typology 2 should be distinctive in character and provide significant space for pedestrian traffic onto the podium. The height of the building should not exceed 4 storeys and should directly relate to the heights of the neighbouring typologies at podium level. Units can vary in width and height to allow for continuous activation across levels.



TPOLOGY 3 - BACK OF HOUSE

Minimum building height	: 3 storeys
Maximum building height	: 4 storeys
Minimum maintenance access strip	: 1.5m

Typology 3 should integrate seamlessly with its adjacent units and provide the opportunity for the integration of public art and/or planting buffers. All back of house units should ensure a consistent maintenance/access strip of a minimum of 1.5m and should carefully consider servicing/ plant replacement strategies from the outset.

Part D Detailing The Buildings

10.3 Community - Design Palette

Key Principles

- The Community building design palette is more natural in character reflecting the green surroundings and residential context of Northfleet Town.
- The palette is made up of materials, and façade design guidance which work together to create a flexible collection of elements to suit emerging designs.
- Visitors should be inspired and excited by the architectural journey which must create variety across a consistent aesthetic.
- The design palette should adapt to each typology, circulation points and interventions within the public realm, ensuring that way-finding is simple and effective and points of interest are well signposted throughout the journey.
- The community zones should be welcoming, inclusive and highly accessible and should take inspiration from the natural and historical forms and materials within Northfleet and its surroundings.
- There is limited evidence on historic materiality of the site, further historical research should be undertaken to inform the Reserved Matters process.

PRIMARY PALETTE

The primary palette should be evident along the community edge and its usage should not vary within individual typologies. Below are some examples of a natural heritage materials including timber cladding, brickwork textures and natural stone.



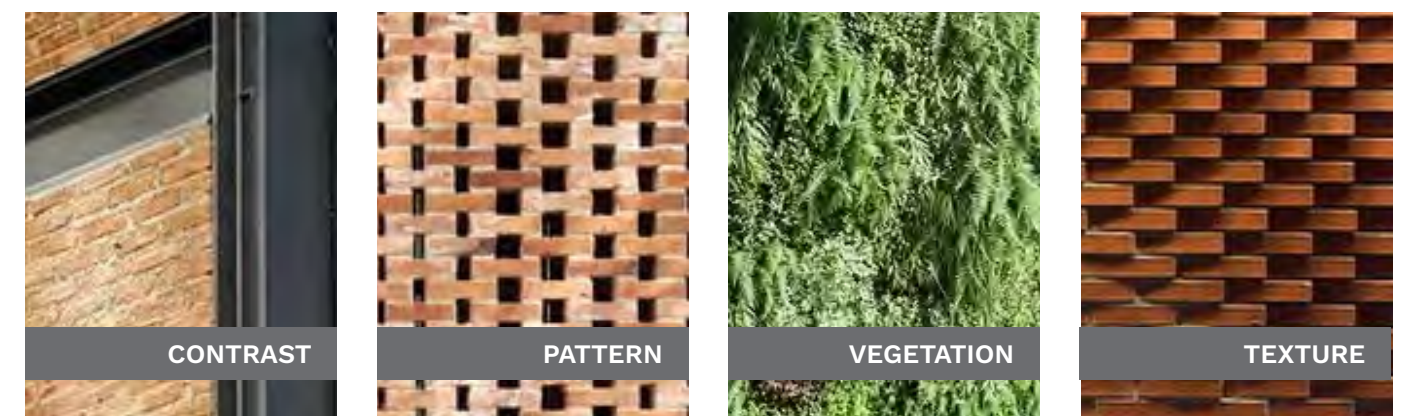
SECONDARY PALETTE

The secondary palette is intended to provide a neutral base layer which compliments the primary palette and reinforces the natural, welcoming character of the area. This palette includes glazing, fenestration and set-back cladding creating a simple consistent treatment across typologies. The secondary palette should remain consistent creating an underlying uniformity which ties the development together.



ACCENT PALETTE

The accent palette is used in very specific places in order to draw attention to certain programmatic, public realm or way-finding interventions within the community edge. This palette is intentionally contrasting providing clear moments of difference within the relative uniformity of the other palettes. Along the community edge this palette should be used to link the edge to the industrial design of the adjacent Marketplace calling on colour, pattern, texture, vegetation etc. Each use of the accent palette should be recognisable and clearly linked to all other accent areas.



Specified materials should be durable, weather beautifully and consider long-term maintenance requirements from the outset. Sustainability should be paramount and recycled materials in accordance with the above parameters should be encouraged where possible.

Part D Detailing The Buildings

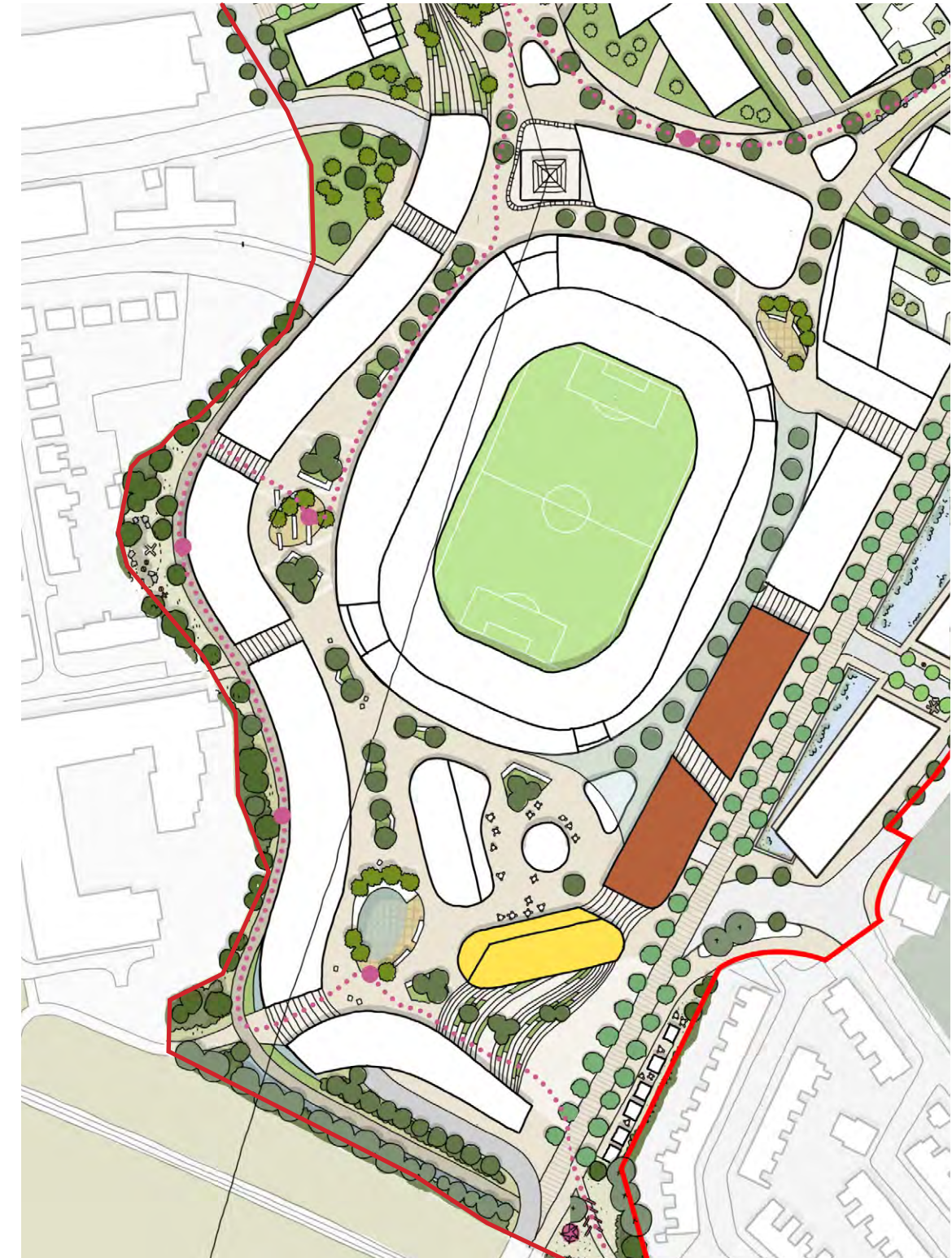
11.0 Commercial



Commercial - Key Principles

- Commercial buildings act as a transition zone between the Marketplace and residential zones and create the first impression of Northfleet Harbourside when approaching from both Ebbsfleet and Northfleet.
- The buildings must be outward facing welcoming and exciting with strong aesthetic links to the industrial heritage of the area.
- The commercial buildings must create a gradient of architecture beginning with the playful Business incubator hub and ending in more formal office buildings which relate to the adjacent residential building.
- Building heights should be progressive from the Business incubator hub providing transition in massing which mediates the level change between the existing residential dwellings, the Marketplace and the higher commercial and residential buildings beyond.
- Commercial architecture should clearly respond to and integrate the surrounding public realm ensuring a continuous active edge and a welcoming inclusive environment.

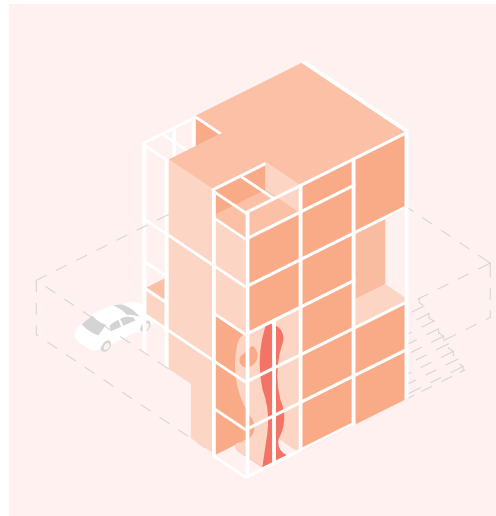
Commercial Avenue
The permeable edge
integrating Northfleet
Harbourside with Northfleet.



- Typology 1 - Office buildings
- Typology 2 - Business incubator hub

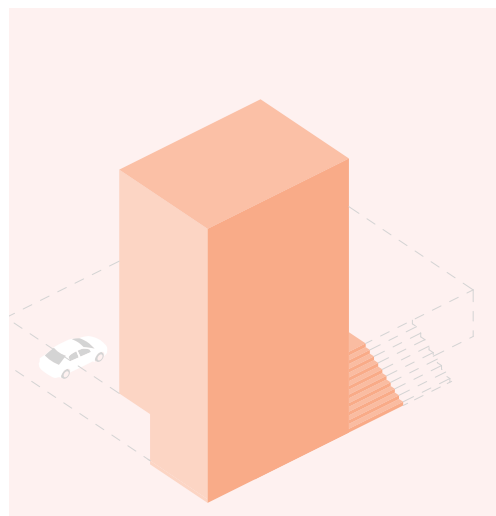
Part D Detailing The Buildings

11.1 Commercial - Building Typologies



TYOLOGY 1 - BUSINESS INCUBATOR

Typology 1 is located adjacent to the main entrance steps and acts as a mediator between the Boulevard and the Marketplace. The building must create a contemporary, exciting space for small to medium enterprises as well as providing a variety of co-working spaces which cater to the local community. This typology must create a highly interactive façade exhibiting a distinct structural frame which is visually independent from the spaces created within. 'Internal' spaces can be highly varied in accordance with the façade articulation principles and must provide a mixture of lettable workspace and semi-open community areas.



TYOLOGY 2 - OFFICE BUILDING

Typology 2 is located along the Boulevard and provides more traditional office accommodation. This building should be designed according to the BCO guide to specification as set out in this document in order to ensure high quality, flexible workspace which is future-proofed for a changing environment. Façades should be developed in accordance with the façade articulation principles exhibiting a gradient of industrial architecture which facilitates the transition from Business incubator building to residential zones.

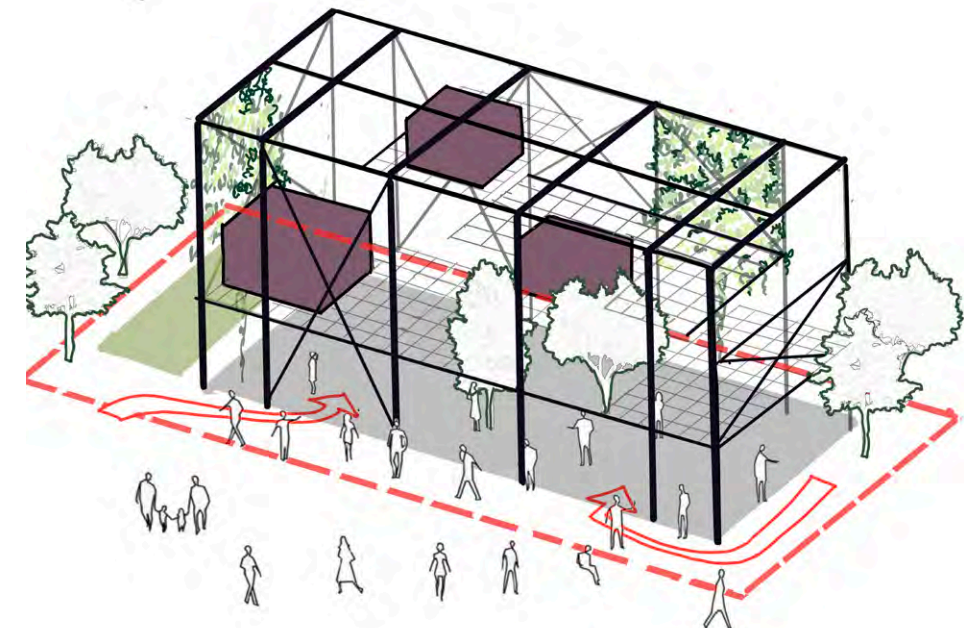
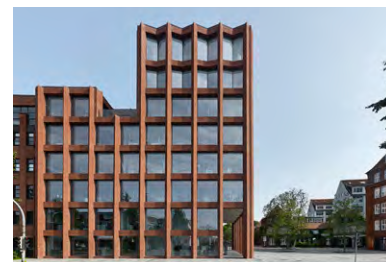


Illustration of permeable ground floor circulation in Business Incubator typology

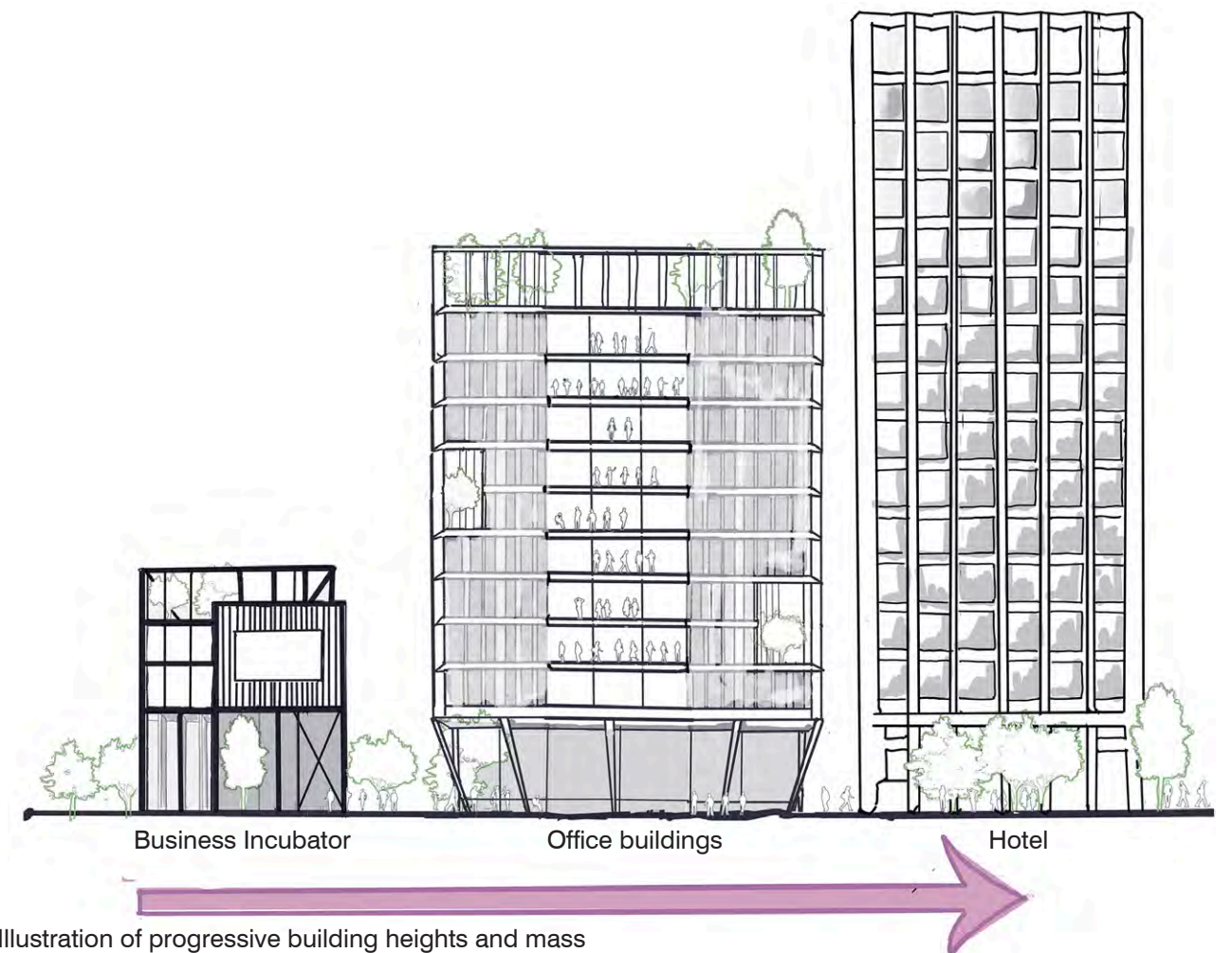
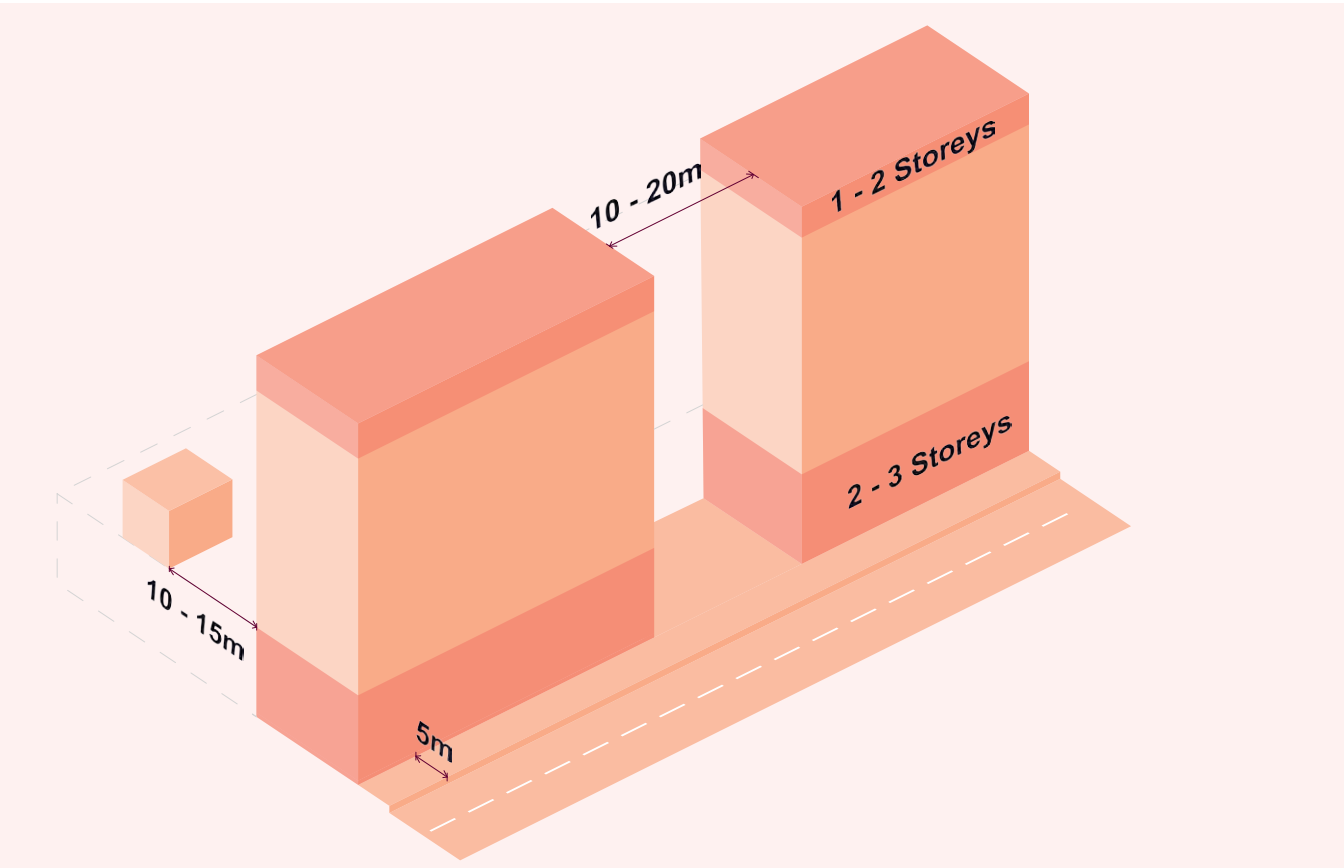


Illustration of progressive building heights and mass

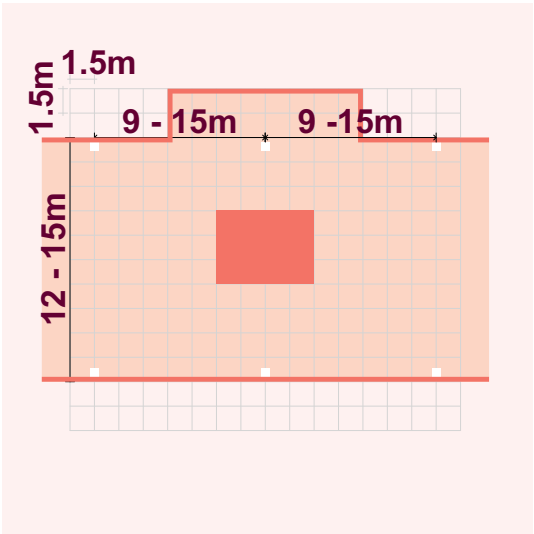
Part D Detailing The Buildings

11.2 Commercial - Critical Distances

- Key Principles**
 - Critical distances for commercial buildings are based on the BCO guide to specification and aim to ensure consistent, pragmatic design decisions which will provide high quality spaces at Northfleet Harbourside.
 - These principles should be applied to both typology 1 and 2 but can be interpreted in different aesthetic styles in accordance with the façade articulation principles.
- In addition to these principles commercial space should be designed to accommodate a maximum effective density occupation of 1 person per 10sqm to ensure user comfort and future flexibility.

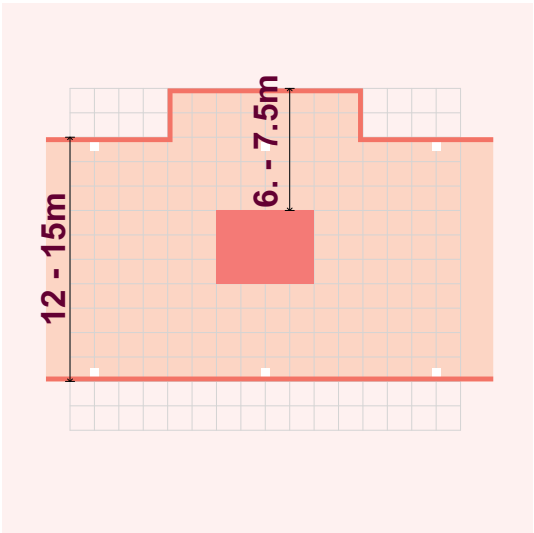


Minimum distance between multi-storey buildings:	10-20m	Commercial buildings should be highly cognisant of the impact they have on the surrounding community particularly in relation to the privacy and wellbeing of inhabitants both within and without. Maintaining adequate spacing between buildings is essential as well as ensuring that areas for pedestrian movement such as pavements and walkways are wide enough to allow for effective flow and spill out areas. All commercial buildings should have a visually distinct top, middle and base creating a clear hierarchy of spaces within the facade. Floor to floor heights should adhere to the BCO guide of specification and space configuration advice to ensure high quality internal spaces.
Minimum distance between single-storey buildings:	10-15m	
Minimum distance from edge of pavement:	5m	
Appropriate height of articulated base element:	2-3 storeys	
Appropriate height of articulated top element:	1-2 storeys	
Minimum clear floor to ceiling height:	2.8-3.2m	



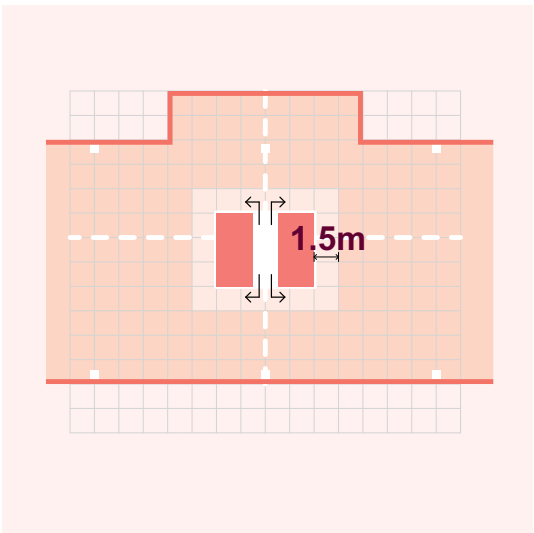
Planning and Structural Grid

All commercial buildings should be set out on a planning grid of 1.5m in order to allow for effective layout of internal spaces. As stated within the BCO guide to specification “This grid supports efficient planning of circulation and open workspace and allows a range of room widths around the perimeter and cores – 3.0 m, 4.5 m, 6.0 m and so on – to be fully co-ordinated with the building elements and services.” Further to this all floorplates should be designed around a structural grid which is a multiple of the 1.5m planning grid and should facilitate maximum flexibility for subdivision of the space where possible. For shallow depth buildings (12-15m window to window) clear span structures are encouraged whilst for deeper floorplates a grid of 9, 10.5, 12 or 15m is recommended.



Floorplate Depth

In shallow plan buildings the ideal distance from window to core is 6-7.5m with window-to-window distances of between 12-15m. This depth allows for the opportunity to use natural or mixed mode cooling and ventilation, higher levels of natural light over a greater proportion of the office floorplate and improved views to the outside for a greater proportion of occupiers. For deeper plan buildings the integration of atria or light-wells should be considered and distances of between 6-13.5m window to core and 15-21m window-to-window should be adhered to. All regular working zones should be located within 6m of a natural light source and should ensure adherence to the target spatial daylight autonomy set out within the BCO guide to specification-key design updates 2022.



Core Design and Circulation

Core design should adhere to the 1.5m planning grid and should allow for the provision of lifts, toilets and services in accordance with the occupancy levels of the building and the acceptable waiting time (for lift provision). Core sizing will therefore vary and can be provided in central or dispersed locations depending on the length of building and corresponding escape distances. Where possible a centralised core with communal entrance should be considered to allow maximum flexibility for subdivision. Within the floorplate a clear circulation route of 1.5m should be provided around the core with access to all workspace areas as well as the core facilities. Secondary circulation routes of between 1-1.2m should ensure that all desks and working areas have access to the primary clear route.

Part D Detailing The Buildings

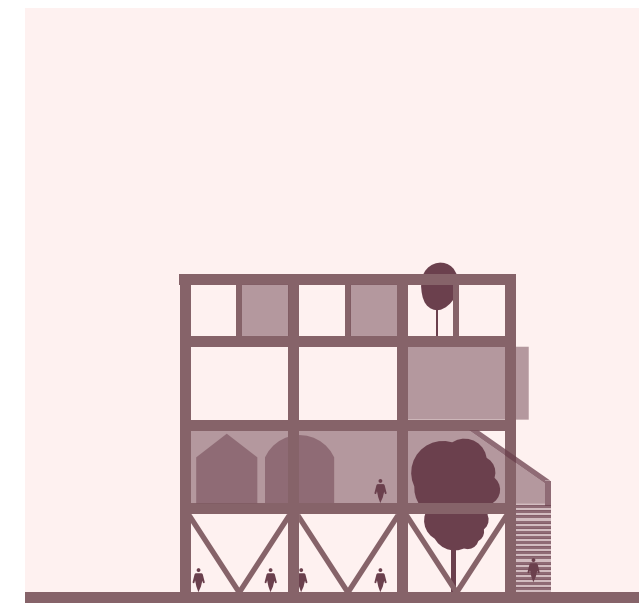
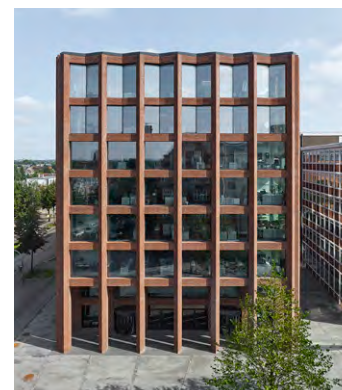
11.3 Commercial - Facade Articulation



- Treatment 1 - False Facade
- Treatment 2 - Framed Facade
- Treatment 3 - Articulated facade
- Treatment 4 - Rhythmic Facade

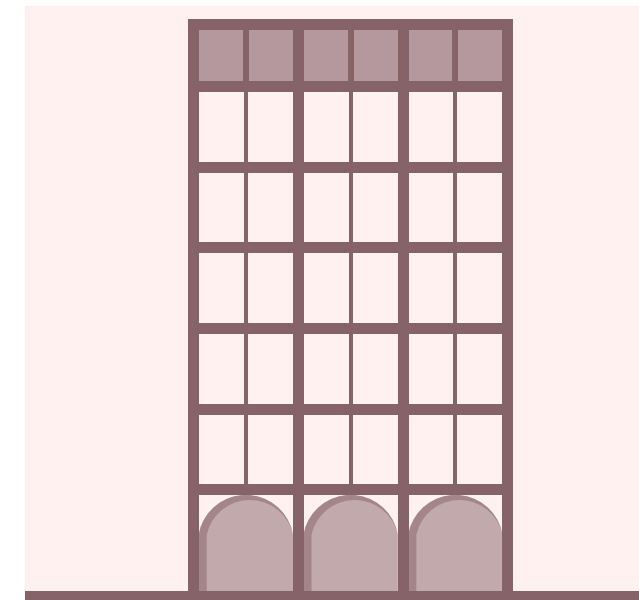
Key Principles - Facade Treatment

- The indicated façade treatment is intended to create a gradient of architecture which transitions from the playful, industrial character of the Marketplace to the crafted palette of the Boulevard residential area. Each commercial building must respond to a variety of settings and it is therefore imperative that elevational treatment is considered as a responsive tool rather than a holistic treatment.
- The diagram above identifies 4 different treatments ranging from the 'false façade' of the Business Incubator to the 'rhythmic façade' facing the stadium. Adjacent are the key principles which each of these façades must adhere, so that each building can respond to its street, podium and contexts.
- Irrespective of the façade treatment each elevation must adhere to the core principles of base, middle and top articulation as set out in the critical distances section (Pg 70).



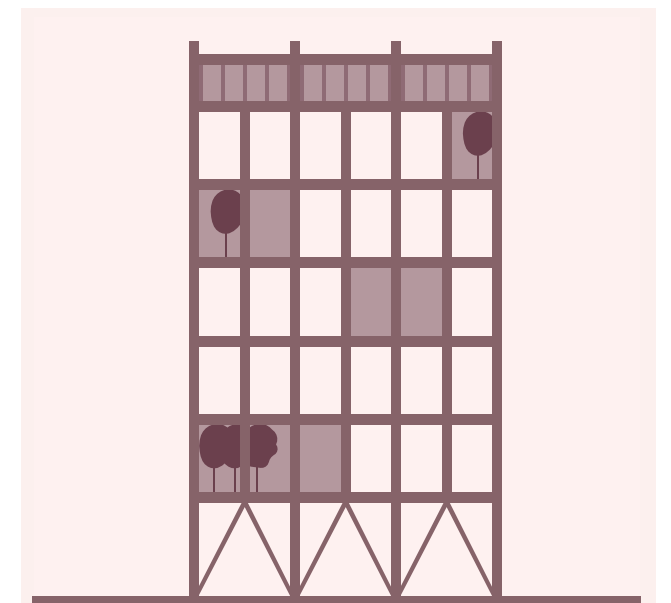
False Façade - key principles

False façade elevations should exhibit outer and inner layers consisting of an outer frame structure which reflects the industrial character of the existing site and inner structures which provide playful interpretations of the Marketplace beyond. The inner layers must be accessed from a central core and entrance facility but they do not need to be uniform and are not required to adhere to the rhythm of the outer structural frame.



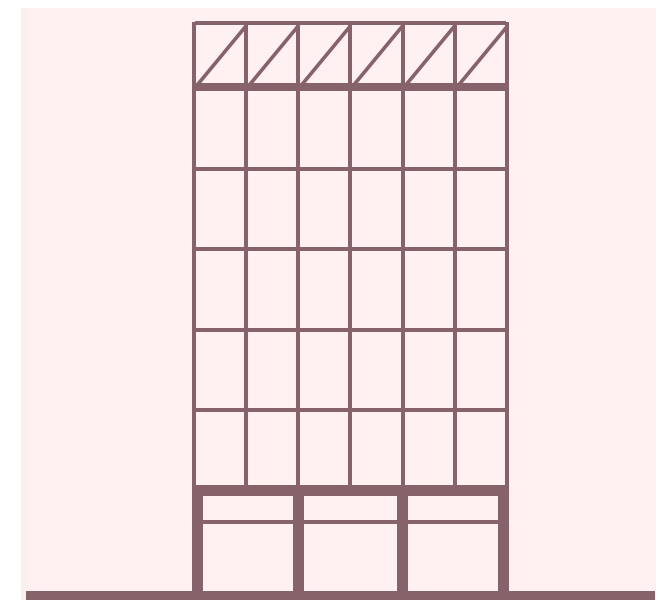
Articulated Façade - key principles

The articulated façade should show a distinct rhythm and expressed structural elements such as piers and columns. However the materiality and forms should respond more to the crafted characteristic of the Boulevard residential zone. The façade should largely be conceived as one holistic element with primary and secondary characteristics however, the relationship between inner and outer elements can be broken to distinguish the top and base elements.



Framed Façade - key principles

Framed façades are the next evolution providing a transition between the playful Marketplace zone and the more formal residential areas. An inner and outer layer should be clearly distinguishable within the elevations but both should adhere to the same rhythm and be noticeably more unified. In specific areas the inner and outer layers can become independent, breaking the unifying rhythm to provide moments of surprise within the façade.



Rhythmic Façade - key principles

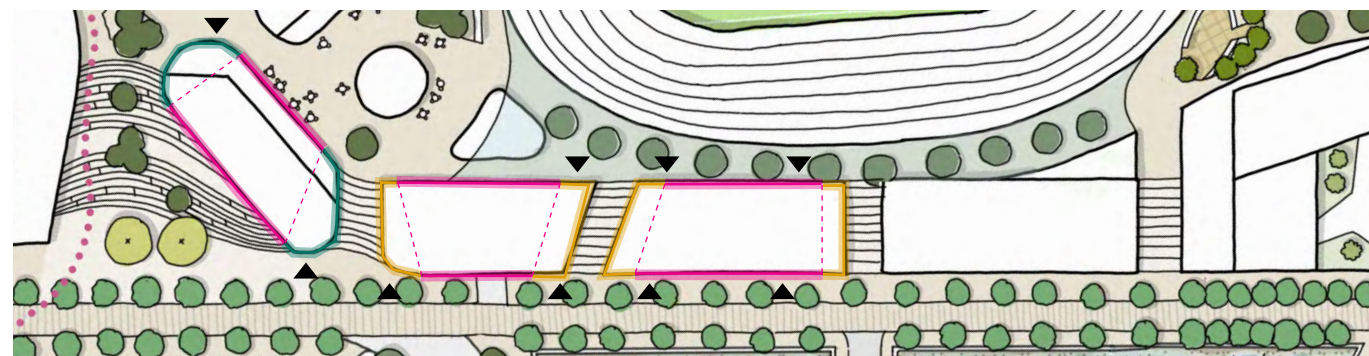
Rhythmic façades present a more minimalist interpretation of the industrial aesthetic. Here the façade should be designed with thinner structural elements and minimal articulation of façade layers utilising fenestration and small changes in depth to define top and base elements. Rhythmic façades should be in keeping with the architectural palette and design intent of the building as a whole but should present a paired back interpretation to compliment its surroundings.

Part D Detailing The Buildings

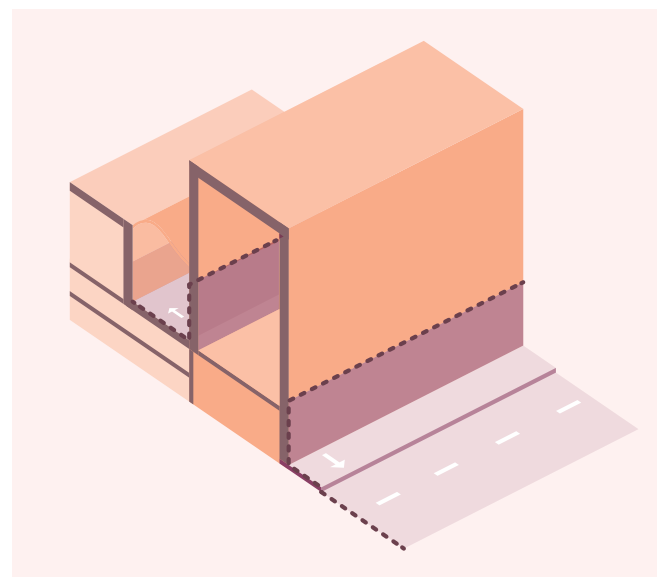
11.4 Commercial - Level Mediation

Key Principles

- The Commercial buildings have a critical role in mediating the level change between the street and the podium ensuring that the development is inherently outward facing rather than insular.
- The façade articulation will announce the character of the development, weaving in aspects of programme, heritage and hierarchy. The way in which each building responds to the adjacent change in level will be critical to the success of creating an outward facing, welcoming proposal.
- All commercial buildings should have a dual frontage ensuring activation at both street and podium levels. Breaks between buildings should be addressed as part of the architectural design employing either an edge integration or wraparound solution which will animate and enliven the edge. Blank walls should not form part of the solution unless essential for operational purposes.



■ Dual Frontage ■ Edge Integration ■ Edge Integration or Wraparound ▲ Commercial entrance opportunity



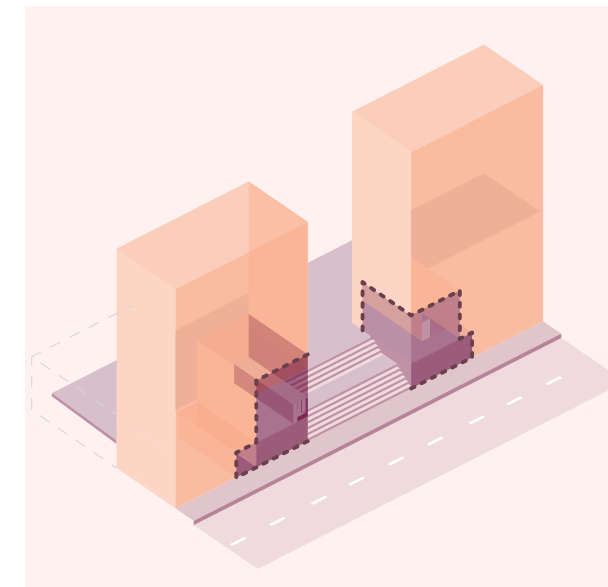
Dual Frontage

All commercial buildings should provide animation at both podium and street levels and should allow for retail spaces and/or commercial entrances addressing both streets.

Commercial entrances should ensure consistent connectivity to the main core(s) providing additional flexibility to enable different entrances for different tenants should it be required.

Retail spaces do not need to be interconnected and should respond directly to the different characters of the Boulevard and Stadium areas. Boulevard frontages should respond to a community context providing, cafés, bars and day-to-day retail offerings whilst Stadium frontages should provide for more specific Stadium or Marketplace related offerings.

Commercial entrances should be located on key corners allowing for continuous stretches of targeted retail/ commercial which can be flexibly subdivided to suit.



Edge Integration

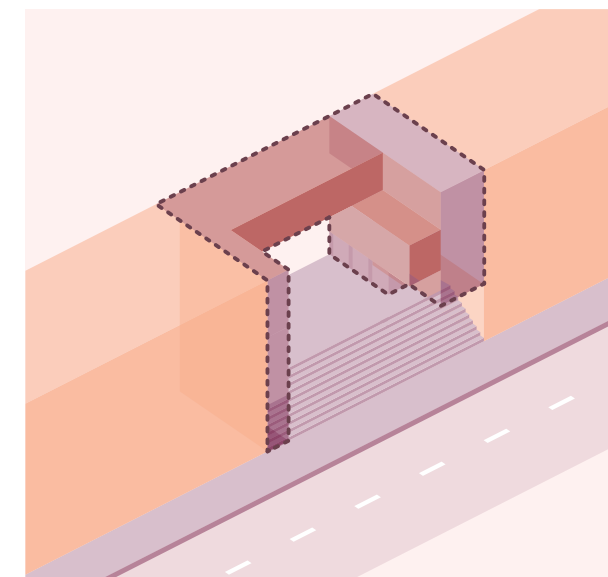
Edge integration creates architecture which extends the adjacent public realm into the building envelope itself and is utilised where breaks between the commercial buildings occur.

This can be facilitated in multiple ways such as a thickened façade, colonnade, extended walkway, half-landing or stair integration, pocket landscape and should create an architectural solution which seamlessly integrates internal and external conditions.

Edge integration should give consideration to all levels but must ensure that the interim level(s) are incorporated in all instances. This ensures that no level is left without animation and that the change in level between podium and street is managed gradually.



Where possible an animated façade should have direct interaction with the integrated edge and night time illumination should be carefully considered.



Wraparound

Wraparound architecture creates a solution where the building is only broken at certain levels creating a staggered form which wraps around the visitors to create multi-level animation.

Wraparound level mediation should ensure a minimum clear height of 2 storeys and a maximum of 4 storeys at all times in order to create well lit spaces which maintain a clear relationship to the transition zone.

Bridging elements should prioritise animating, consistently active uses to create interest and should ensure that night time lighting is carefully considered in order to create a safe and welcoming environment.

Wraparound forms can be staggered, providing different experiences as the visitor ascends to the next level or singular focussing on one particular element of animation.



Part D Detailing The Buildings

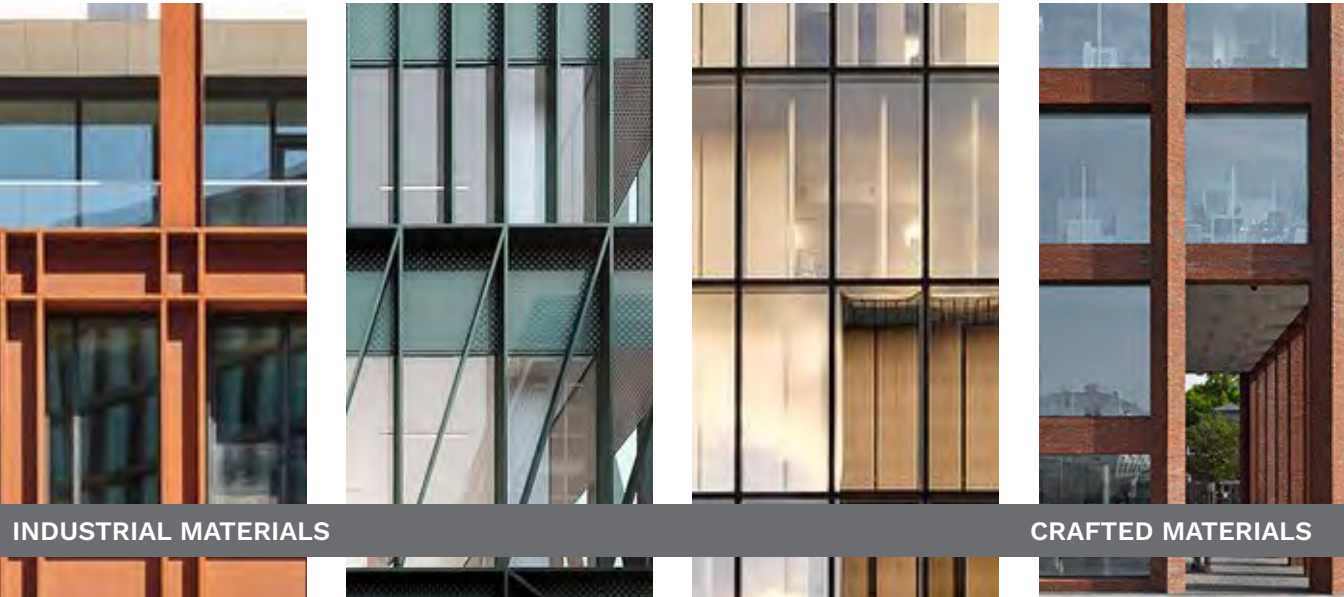
11.5 Commercial - Design Palette

Key Principles

- The commercial design palette is made up of materials, floorplate and façade principles which work together to create a flexible collection of elements which can be interpreted to suit emerging designs.
- The material palette will vary depending on the identified typology and façade treatments whilst façade and floorplate guidance should remain largely consistent.
- The collection of commercial buildings should be conceived as one gradient of materials which all take inspiration from industrial structures and processes and visibly relate to each other and the surrounding context both existing and new.
- Visitors should be inspired and excited by the architectural journey which must create a visual edge that addresses both Northfleet and the new development.
- Sensitivity to the integration of Northfleet is paramount, creating a strong and relatable sense of place which is both exciting and welcoming for all.
- There is limited evidence on historic materiality of the site, further historical research should be undertaken to inform the Reserved Matters process.

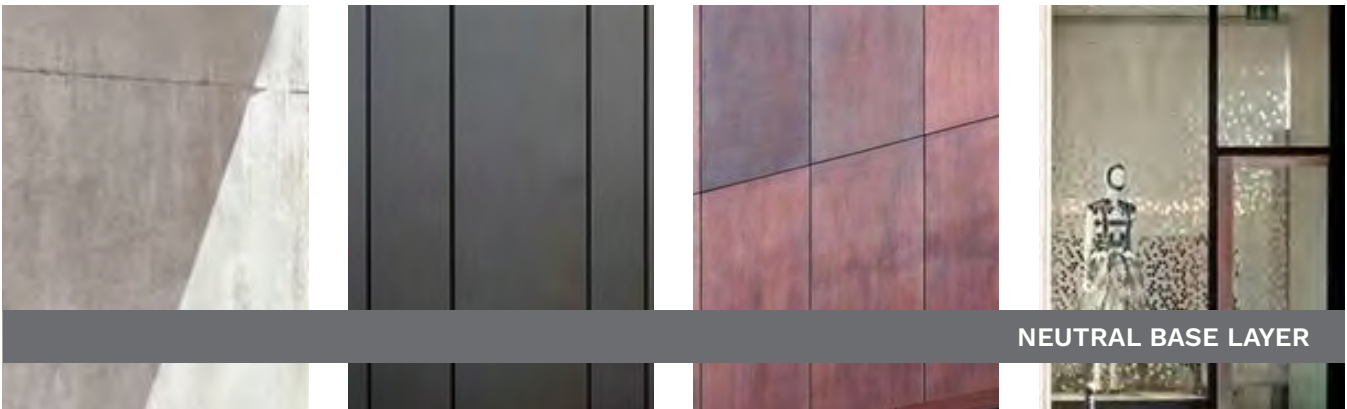
PRIMARY PALETTE

The primary palette should create the aesthetic for the 'outer layer' of the commercial buildings and should create a visible transition from the 'industrial' character to the 'crafted' character of the Boulevard residential zone. Below are some examples of an appropriate material transition including exposed steel I beams, prominent metal fins, accentuated fenestration and crafted brick piers. This variety should be applied in accordance with the façade articulation gradient. Where possible reuse of materials from the existing site should be considered particularly in relation to the more industrial inspirations.



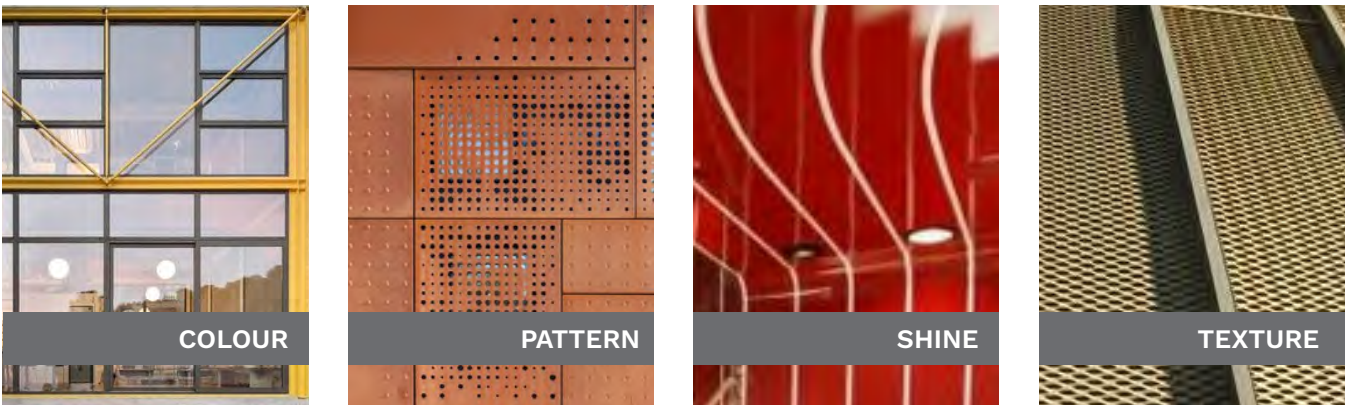
SECONDARY PALETTE

The secondary palette is intended to provide a neutral base layer which compliments the primary palette and reinforces the cohesion within the area. This palette includes glazing, fenestration and set back cladding creating a simple, consistent treatment across typologies. Although some variation can occur in order to complement different aspects of the primary palette the secondary palette should remain largely consistent creating an underlying current of uniformity which ties the development together.



ACCENT PALETTE

The accent palette will be used in different quantum for different façade articulations. Within the false façades significant use of the accent palette is acceptable in order to articulate the playfulness of the Business Incubator building whereas for the framed and articulated façade it should only be integrated within the areas of separation between inner and outer layers or to articulate the top and base elements. This palette should not be used on rhythmic façades. The accent palette can call on colour, pattern, shine or texture and should be complimentary to the primary palette. It is acceptable for the approach to change between buildings to reflect the transition gradient.



Specified materials should be durable, weather beautifully and consider long-term maintenance requirements from the outset. Sustainability should be paramount and recycled materials in accordance with the above parameters should be encouraged where possible.

Part D Detailing The Buildings



Example elevation of commercial buildings on Boulevard



Example view of Stone bridge plaza and commercial office buildings along Boulevard character area

Part D Detailing The Buildings

12.0 Residential - Key Design Objectives



Healthy and Sustainable Community

A healthy community can be defined as one that meets the needs of all users, regardless of age, gender, race, or sensory and mobility abilities. In the broadest sense, this means creating places that can be enjoyed by people from all cultural and socio-economic backgrounds. For residential developments to be considered sustainable, the overall mix should include a variety of people from all stages of life.

Accessible Space

Inclusivity for all should be central to the design concept. Accessible design has evolved from designing just for people with disabilities- instead, it should promote an all-inclusive approach which allows all people to use the space in the same way and on equal terms. The Building Regulation requirement M4(2) - 'Accessible and Adaptable Dwellings' should be followed for all the proposed apartments.

Identity

The design process for large developments should acknowledge how the residents and visitors will resonate with the area by creating recognisable features that promote cultural and emotional attachment to the place. Dividing the scheme into character areas is a great strategy to provide a sense of belonging and at the same time avoiding extensive feature repetition. In addition, new schemes should have a positive impact on the identity of the surrounding neighbourhood.

Energy Strategy

The environmental effects of a project should be considered at all stages to ensure that the development has been optimised to amplify positive environmental effects while reducing negative environmental impacts wherever possible. The energy strategy for residential schemes should provide energy efficient homes, equipped for the anticipated challenges brought about by a changing climate.

All RMA's will demonstrate how the proposals meet the agreed targets set out in the Outline Planning Application.

Efficient Land Use

Along with including low-energy homes, sustainable new schemes should make good use of land by increasing densities that are easily accessible by public transport. The scheme should also provide a mix of uses that support everyday activities including space to live, work and play.

Dual Aspect

The design should maximise the number of dual aspect homes in order to optimise natural light, cross ventilation and multiple outlooks. These benefits contribute to a more energy efficient development. Due to the development scale, north facing single aspect units should overlook a significant amenity such as a river, public park or some other amenity feature.

Sunlight, Daylight and Shelter

Building orientation is key for a sustainable development as it drives the quality of daylight/sunlight received by the proposed building as well as the adjacent buildings. As part of the detailed design process, daylight and sunlight assessment and shadow studies will be carried out to achieve optimum internal environments. As part of a Reserved Matters Application buildings will be designed to accommodate these constraints. Mitigation techniques include the placement of balconies to provide solar shading or alterations to glazing dimensions to allow greater levels of daylighting internally.

The external amenity spaces should be carefully considered through all design stages to ensure sunlight penetration is maximised. Orientation will also follow the wind micro-climate assessment to create spaces that are sufficiently sheltered.

Gardens and Balconies

Outdoor amenities are a basic human need. The core objective is to provide access to an adequate area of outside space. Further information on how balconies can be designed to respond to micro-climate conditions surrounding site constraints is included in the following pages of the Detailing The Buildings section.

In addition to private balconies, the development can increase the outdoor amenity by providing semi-private areas within the building, such as roof garden and podiums.

Part D Detailing The Buildings

12.1 Neighbourhood Characterisation for Architectural Design - Residential

Materials and Identity

The elevational treatment of the character area has been conceived with a particular colour palette to ensure that each neighbourhood is easily identifiable to both the internal and external users. The colours have been extracted from a series of paintings which exhibit a dominant colour with variations on that theme.



Respecting the historical material palette of the surrounding context; masonry has been selected as the primary material, along with metal features which respond to the industrial nature of the site. There is limited evidence on historic materiality of the site, further historical research should be undertaken to inform the Reserved Matters process.

The use of different tones and textures helps to provide identity to the specific character of each neighbourhood. The brickwork is complemented by several key features such as the windows, balconies and spandrel panels at the plinth level.

These elements help to break down the elevations to

avoid a long linear block expression by eroding sections of the façade and reducing the elevations to a suitable aesthetic scale.

By mixing and matching the selected materials, each urban block should have its own distinctive character while still reading cohesively as a part of the whole. The palette of materials should be developed holistically to ensure harmony between each set of elements as they move from block to block.

A variety of features should be employed to assist with breaking up the mass of the blocks and to introduce movement and rhythm into the façades, avoiding a monolithic expression.

Objectives

- The choice of materials are required to minimise long-term maintenance through selection of high quality and durable products.
- Sustainability and circular economy should be paramount with recycled materials used where possible. How materials can be reused after demolition must be considered.

Requirements

- Facade construction comprises non-combustible materials as required by Building Regulations.

Part D Detailing The Buildings

12.1 Neighbourhood Characterisation for Architectural Design - Parkland



On the Thames and Medway Canal, near Northfleet - Frederick Stonham



Objectives

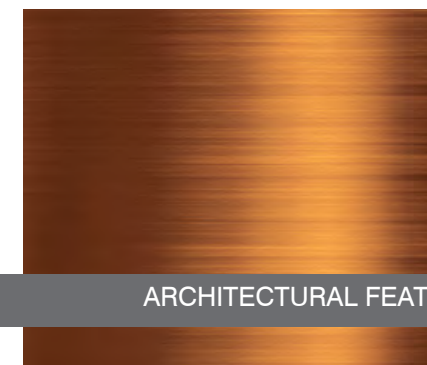
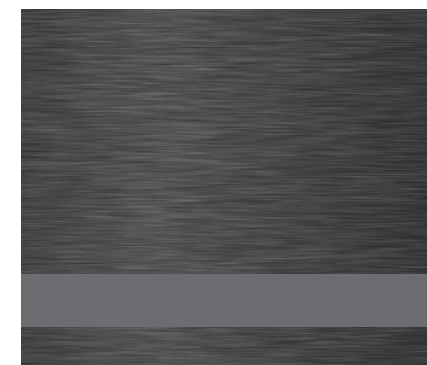
A residential neighbourhood characterised by living, green elements and features that form part of the architectural vernacular.

The residential buildings within this character area should be defined by the following design objectives:

- Buildings should include external features and structures that enable planted elements to be present.
- Green structures can be integral to the primary structures or, bolted on as secondary elements.
- Planted elements must predominantly be located within the ground, first and second storey elevation plane, but can extend further where technically suitable and practically viable.
- Vertical and horizontal (public realm level) green elements should combine to form a coherent planted habitat.
- Planting choices should benefit biodiversity and encourage nature into the residential neighbourhood.
- Consideration should be given to solar orientation to ensure planted elements succeed.
- Water management -rainwater collection and irrigation- should be powered through sustainable means.



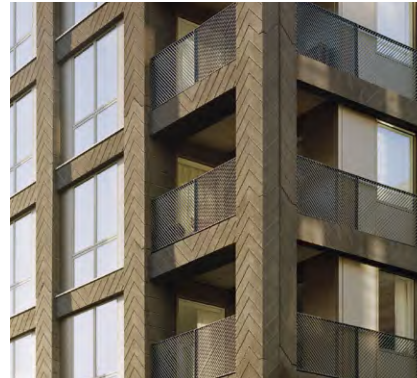
PRIMARY MATERIAL - MASONRY (INDICATIVE PICTURES)



ARCHITECTURAL FEATURES - METAL (INDICATIVE PICTURES)

Part D Detailing The Buildings

12.1 Neighbourhood Characterisation for Architectural Design - Boulevard



The Fighting Temeraire - Joseph Mallord William Turner

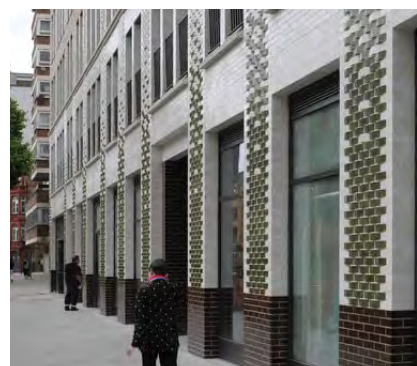
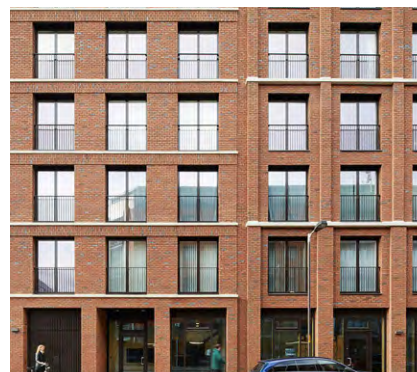


Objectives

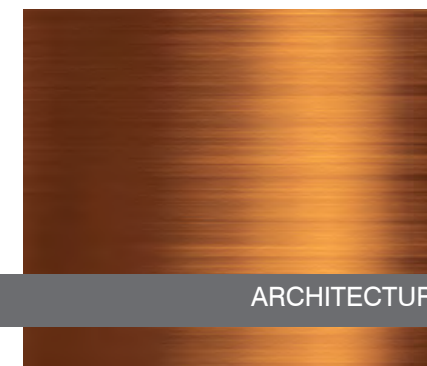
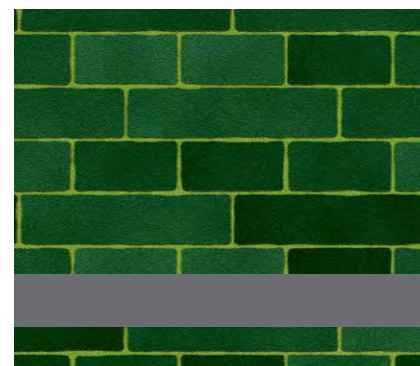
A residential neighbourhood characterised by crafted brick work elements and detailed with rich architectural features forming a cohesive vernacular that is more unique and intimate in scale.

The residential buildings within this character area should be defined by the following design objectives:

- The external face of buildings at the ground, first and second storeys must be composed of brick, elements, uniform in tones that ground the building to public realm.
- Ground, first and/or second floor façade structures visually linked within the elevation plane should provide visualisation of load bearing walls and, they must include arches over door and window openings, setting up a rhythm that is cohesive through the neighbourhood.
- Vertical and horizontal façade design should be proportional and harmonious with each other, and they should be repeatable but not homogeneous in look.
- Consideration should be given to the design detailing of edges (brick arris) and corners to building features. An imagined localised construction technique should be sought from historic references or practices, to provide the cohesive decorative language that unifies this neighbourhood (i.e., Polychromatic and indented brickwork, diapering, quoins, bull nose, double bull nose or cow nose frames, and string or band course features etc.).
- Natural materials should be used where possible to provide a feeling of warmth and permanence.



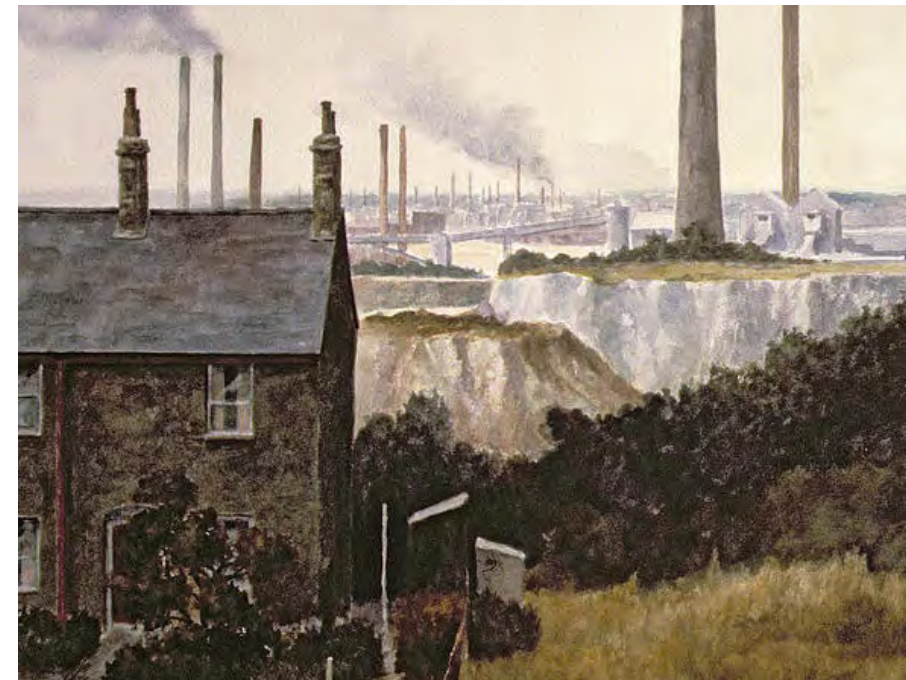
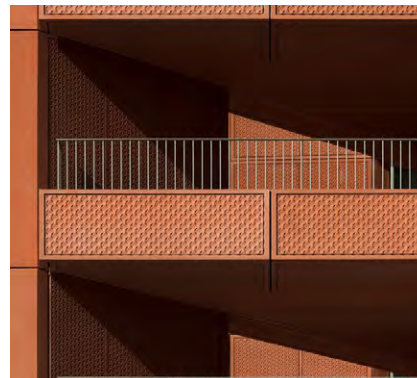
PRIMARY MATERIAL - MASONRY (INDICATIVE PICTURES)



ARCHITECTURAL FEATURES (INDICATIVE PICTURES)

Part D Detailing The Buildings

12.1 Neighbourhood Characterisation for Architectural Design - Riverside



North Kent Landscape Nr Northfleet Gravesend - Vic Trevett

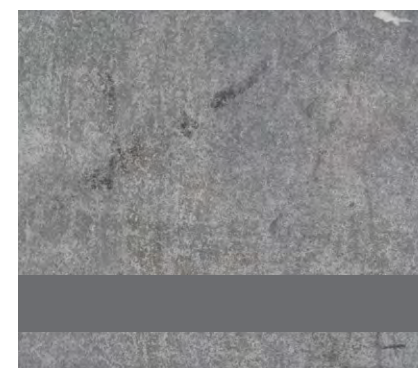
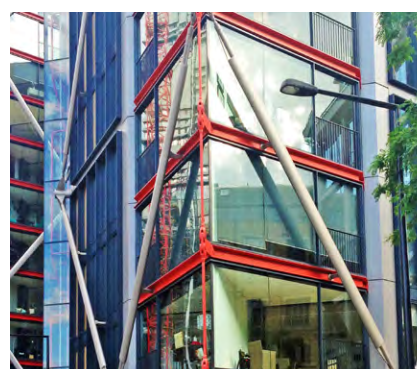


Objectives

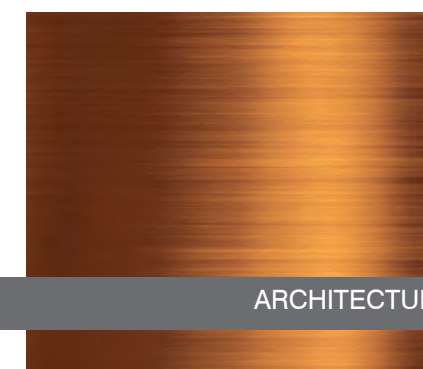
A residential neighbourhood characterised by industrial styled elements and features that form part of the architectural vernacular.

The residential buildings within this character area should be defined by the following design objectives:

- Visible building structures should include steel – both weathered and finished – and exposed concrete to form an industrial style that provides echoes of Gravesham's historic past.
- Features should be integral to the structure of the building and form a language that can be replicated within the neighbourhood.
- Vertical and horizontal façade treatments should be proportional and harmonious with each other, and they should be repeatable but not homogeneous in overall appearance.
- Consideration should be given to the scale of material used. Larger, thicker bolder elements to be complimented by more textured or patterned features.
- Solar orientation, façade angles and concentration and dominance of building material elements should be assessed to avoid magnified Urban Heat Island Effect.
- Where possible recycled material from the site should be considered in feature locations.



PRIMARY MATERIAL (INDICATIVE PICTURES)



ARCHITECTURAL FEATURES (INDICATIVE PICTURES)

Part D Detailing The Buildings

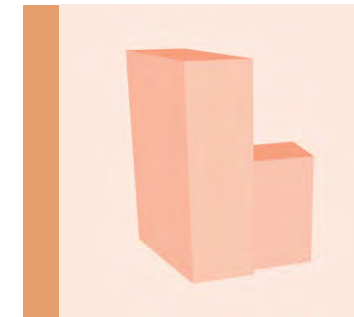
12.2 Residential - Building Typologies

Building Typologies

Each of the blocks should be considered individually and as a part of the whole. Their overall form is staggered both horizontally and vertically to create a dynamic elevation that changes as you move through the development. This play of solid and void is informed by the layout, location, aspect and orientation of the blocks.

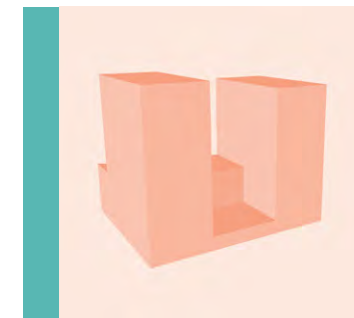


- Form 1 - Focal block
- Form 2 - Twin Blocks
- Form 3 - "L" Block
- Form 4 - Single Block
- Form 5 - Townhouse



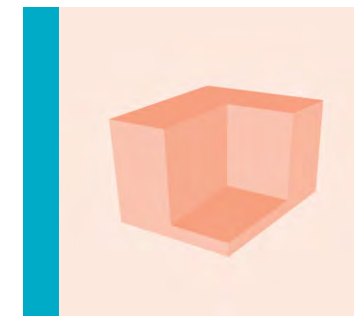
Form 1 - Focal block

Focal blocks are located at key spots in the masterplan to help identifying a landmark area. In order to create a focal point, this urban block configures in a predominant tall building featuring at a corner forming a distinct building element with overall vertical emphasis.



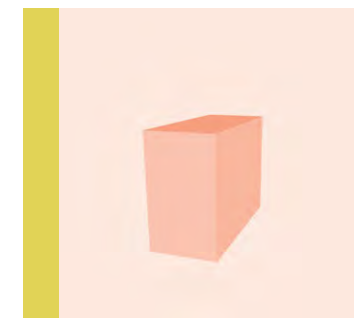
Form 2 - Twin Blocks

The most common block form in the scheme, occurring in all character area, the twin block is formed by parallel buildings connected by a lower piece creating a sheltered courtyard garden (above podium). This urban block is consolidated by a base element.



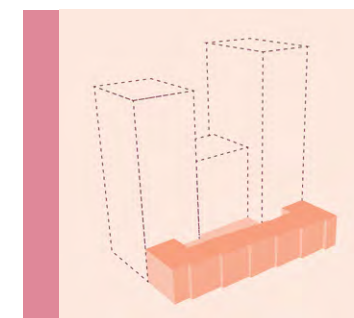
Form 3 - "L" Block

Lower in height, block "L" type emphasize a horizontal character. The form consists of two elements joined at an angle creating an enclosed space at the centre.



Form 4 - Single Block

Without internal courtyard, this stand alone block is small in volume compared to the other forms. A simpler shape to balanced out the overall composition.



Form 5 - Townhouse

As a typical low rise urban townhouse, the units are grouped in line but they are stepped to create a dynamic form. 3 storey in height, the townhouse is the lowest residential element within the scheme

Part D Detailing The Buildings

12.3 Residential - Façade Articulation



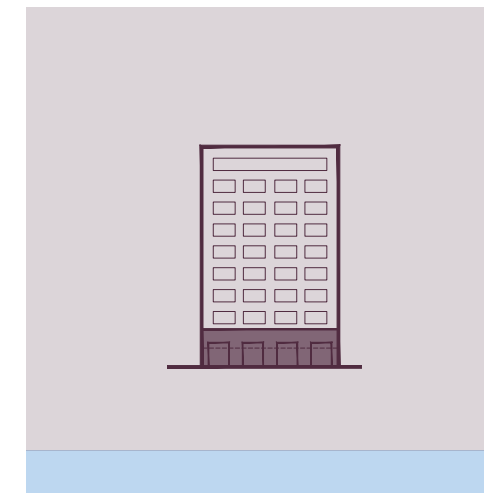
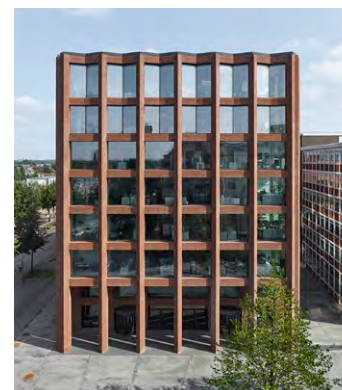
- Flat Facade + Flat Roof
- Flat Facade + Pitch Roof
- Two Storey Grid + Flat Roof
- Three Storey Grid + Flat Roof
- Three Storey Grid + Shed Roof
- Four Storey Grid + Penthouse

Façade Articulation

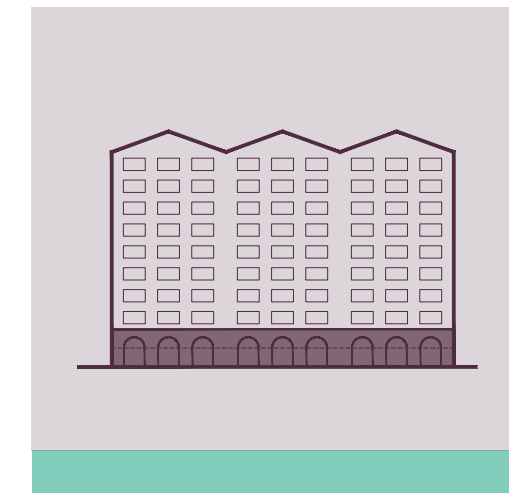
Due to the scale of the development, the façade articulation should vary between areas to encourage a dynamic visual appearance.

A variety of features should be employed to assist with breaking up the mass of the blocks and to introduce movement and rhythm into the façades.

Architecture features should vary in scale from overall massing strategies down to the detail level so that the activity is legible from a variety of distances



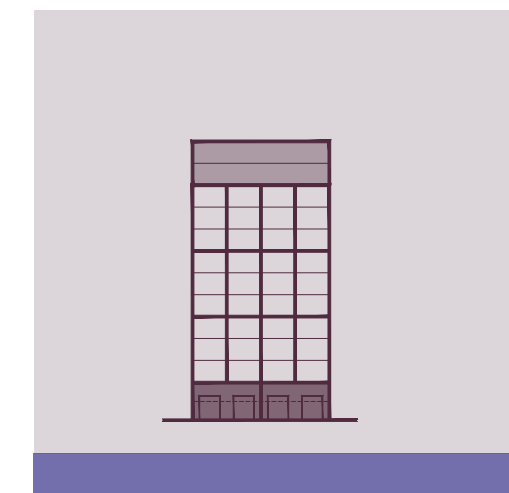
Flat Facade + Flat Roof



Flat Facade + Pitch Roof



Two Storey Grid + Flat Roof



Three Storey Grid + Flat Roof



Three Storey Grid + Shed Roof

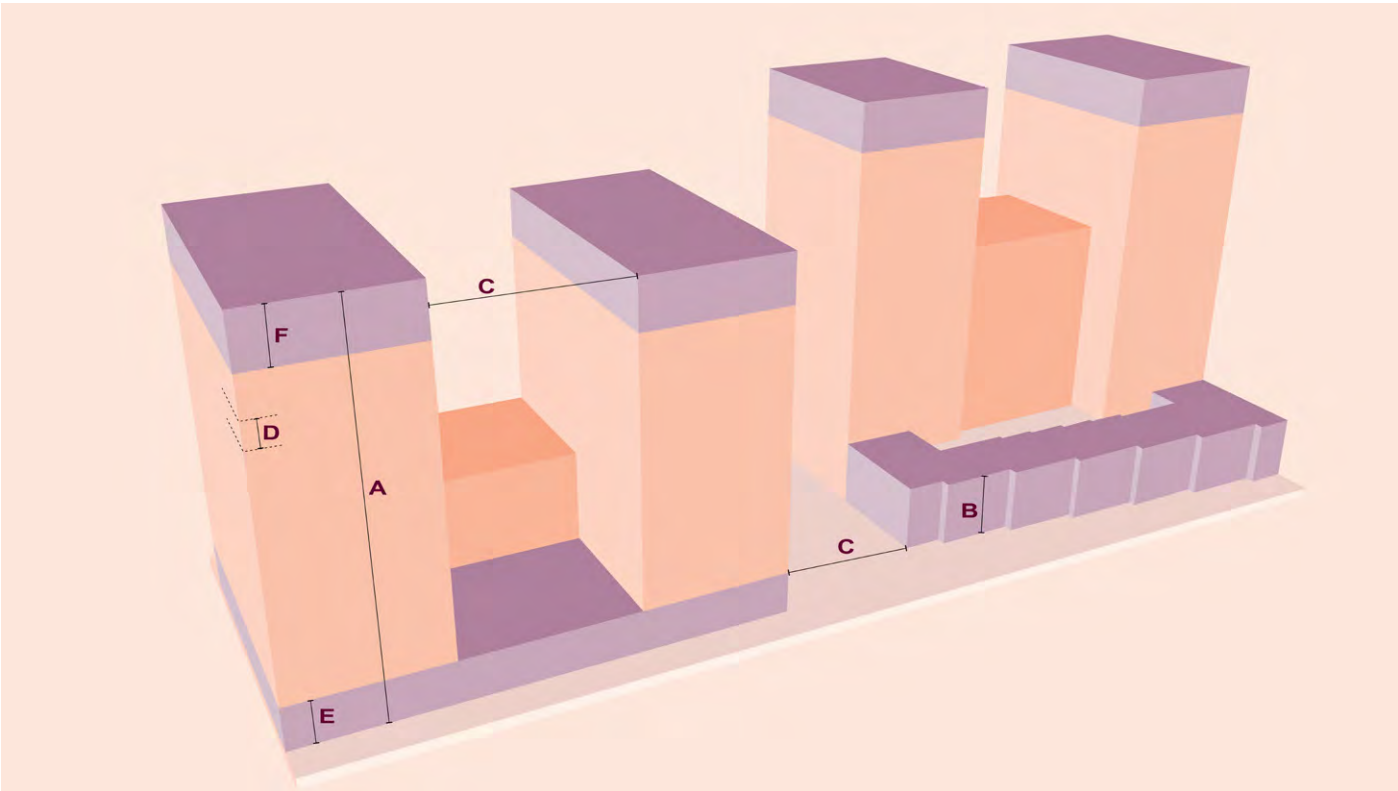


Four Storey Grid + Penthouse

Part D Detailing The Buildings

12.4 Residential - Key Dimensions & Principles

The diagram below illustrates the key relationships between blocks and identifies important critical dimensions. These are mandatory minimum distances that should be maintained between adjacent façades (not including projecting balconies).



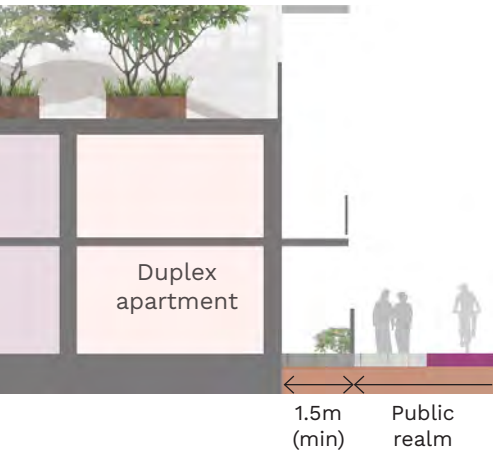
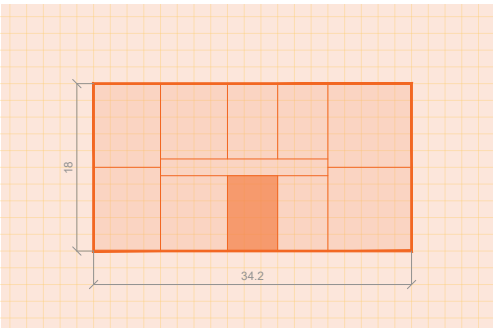
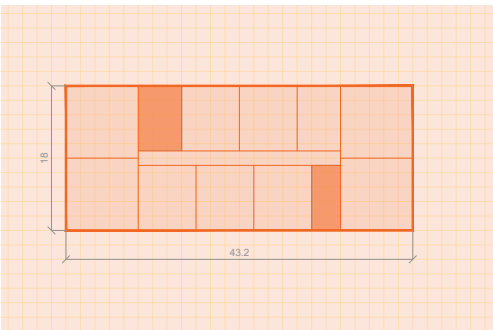
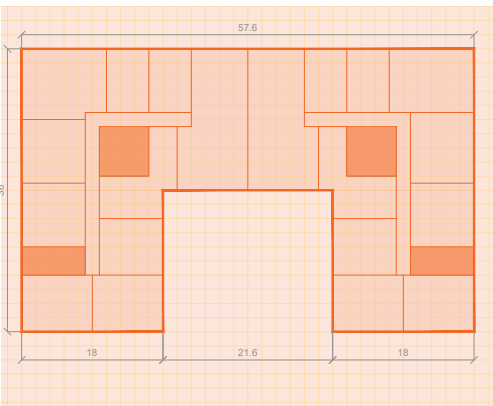
A - Residential building height:	5-20 storeys
B - Townhouse height:	3 storeys
C - Minimum distance between multi-storey buildings:	21m
D - Height of typical floor:	3.2m
E - Height of articulated base element:	2-3 storeys
F - Height of articulated top element:	2-3 storeys

Requirements

- Proposals must demonstrate that the building line falls on or inside the maximum parameter envelope.
- Buildings must be designed in compliance with the latest legislation and regulation. Attention must be given to future-proof designs to comply with emerging standards, such as fire safety.

Objectives

- Avoid inappropriate overlooking between adjacent properties.
- Establishing overall physical relationships, while allowing for variation between the expressions of the buildings will contribute to a sense of cohesiveness within the development.
- The dimensions may be greater than the minimum dimensions measured between blocks on the parameter plan.
- Building edges should not impact on the future development potential of neighbouring properties
- Building edges should be set out to maximize privacy and avoid overlooking in residential properties
- Single aspect north facing dwellings should be avoided.



Maximum and minimum building dimensions

For an efficient layout, residential blocks should be 16 to 19m (including external wall) in order to accommodate apartment units along both facade with corridor at the centre.

Information on the maximum and minimum building dimensions can be found in the Parameter Plans, principally the Built Edge Deviation Plan (NFH-UNS-MAST-DR-1011). The plans set out the maximum building envelopes for each parcel. Within this envelope, the buildings can be altered by the dimensions specified. The building forms must also respect the minimum dimensions set out in the table opposite.

Grid

Ideally, residential buildings should be set out on a 1.8m grid to facilitate internal layouts.

Core and Circulation

The cores and circulation should be designed in compliance with the latest Building Regulation and guidance to achieve accessibility for all and meet safety standards.

Ground floor residential units

The integration of ground floor apartments, duplexes and townhouses form an important part of the strategy for activating the public realm. All ground floor units must have a 1.5m (minimum) deep front garden or terrace accessed from the main living spaces. Ground floor windows should be separated by the public realm by a 1m (minimum) deep planted defensible boundary.

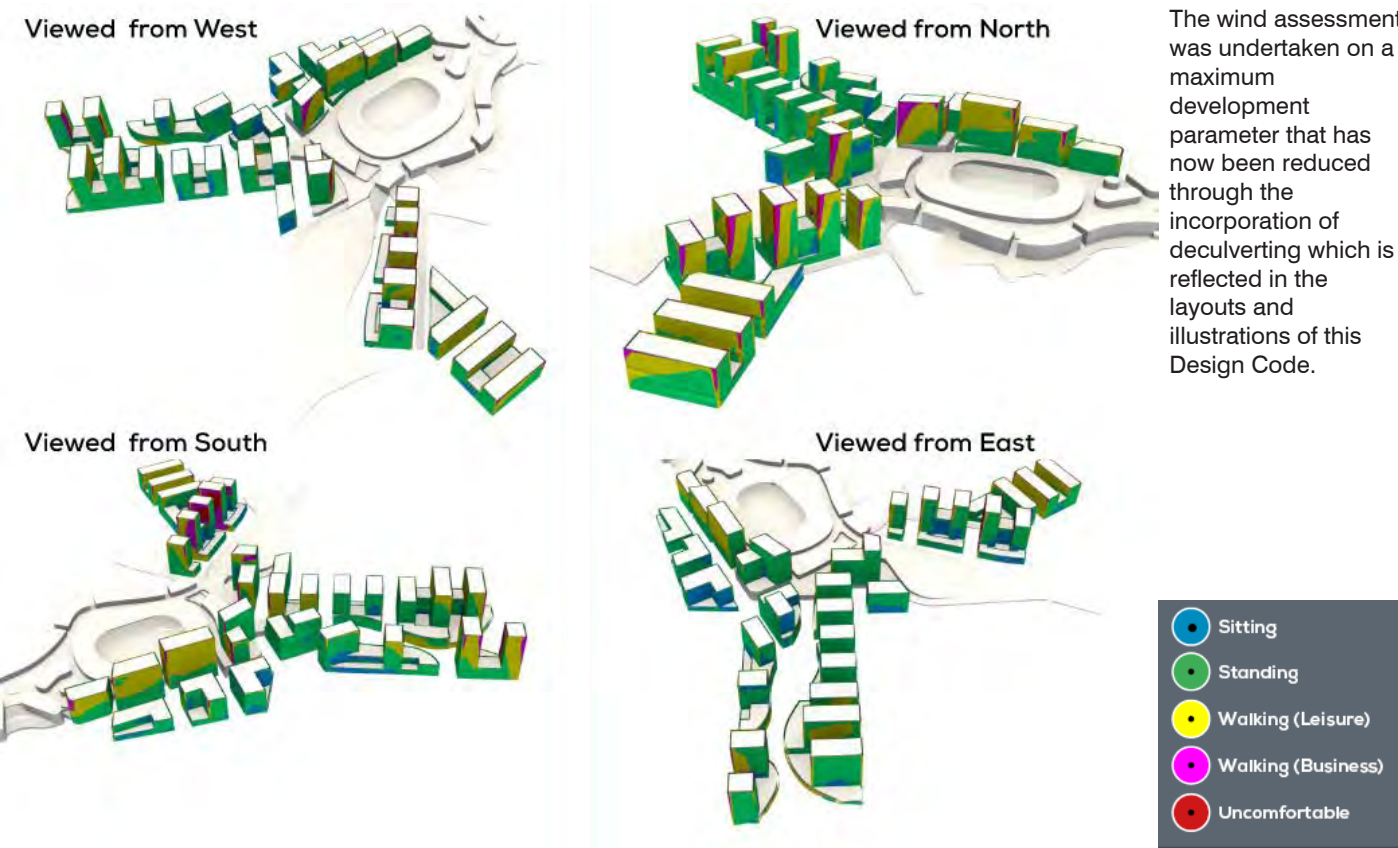
These outdoor spaces should be defined by a railing, wall or a planted boundary. Special consideration should be given to ensure sufficient levels of privacy for these homes - this may take the form of planting, fenestration design or utilising level changes between apartments and the adjacent public realm.

Part D Detailing The Buildings

12.5 Residential - Building Elements and Detailing

Private Amenity Space

Objectives	Requirements
- All residential units to have access to private amenity space. This may take different forms such as, balcony, roof terrace, ground floor terrace or winter garden. - Where winter gardens are provided measures must be taken to ensure residents also have access to communal amenity space. - Daylight to be taken into account regarding locations and orientation. - Projecting balconies may project beyond the maximum building parameter envelope.	- Proposed development line falls on or inside the maximum parameter envelope. - The size of all private amenity must meet the required policy minimum dimensions and areas. - Guards/ railing must be designed in compliance with the most current Building Regulations. - Privacy screens are required between shared balconies. - Wind mitigation measures are to be considered in all façades. - Further detail to be investigated for balconies in the magenta/ red regions below.



Preliminary Wind Assessment

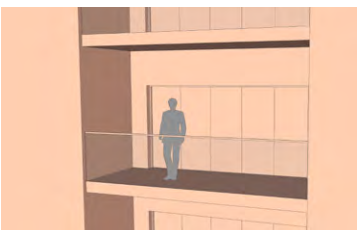
Balcony Design

The diagrams below correspond with the parameter plans and give additional guidance around how the private amenity can be positioned in relation to the maximum parameter envelope.

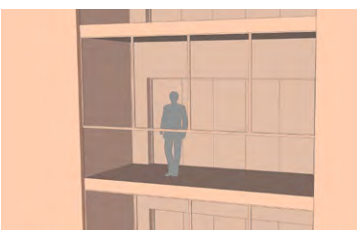
Inset Balcony



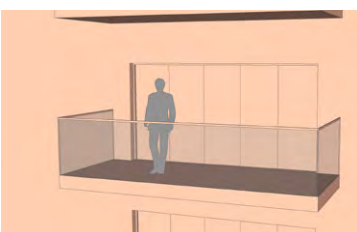
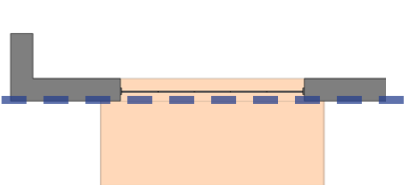
Line of maximum parameter envelope



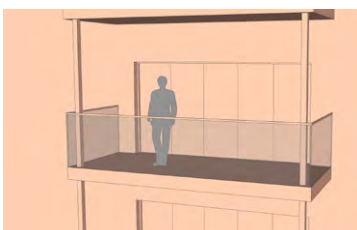
Winter Garden



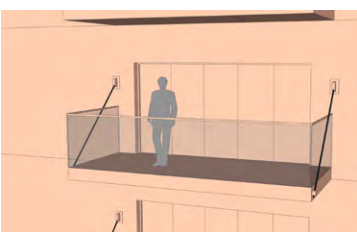
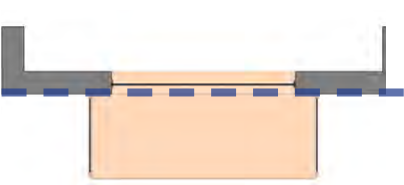
Cantilevered Balcony



Stacked Balcony



Hung Balcony



Plan view

3D view

Part D Detailing The Buildings

12.5 Residential - Building Elements and Detailing

Designing facades for microclimate and site constraints

There are a variety of facade design solutions available to respond to microclimate constraints such as overheating and wind. These solutions are also useful for designing for particular site conditions such as noise and privacy. These solutions would be selected and tested through further detailed study during the Reserved Matters Application (RMA) process.

The following images represent a small selection of examples of how these solutions may be deployed.



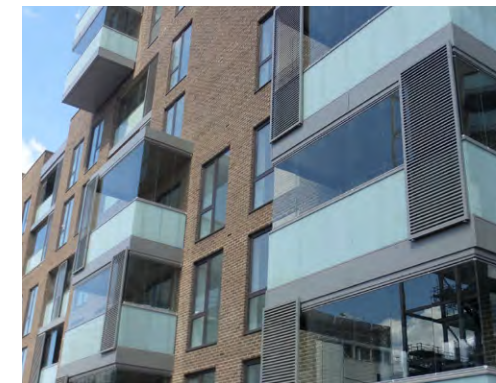
Cantilevered balconies

One of the benefits of a cantilevered balcony solution is the shading it can provide to windows below preventing overheating.



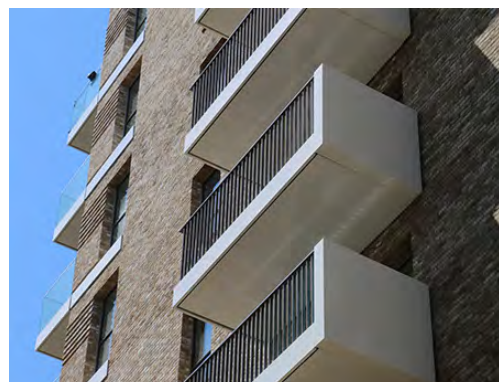
Inset balconies

Inset balconies are useful in areas where greater privacy and shelter are required.



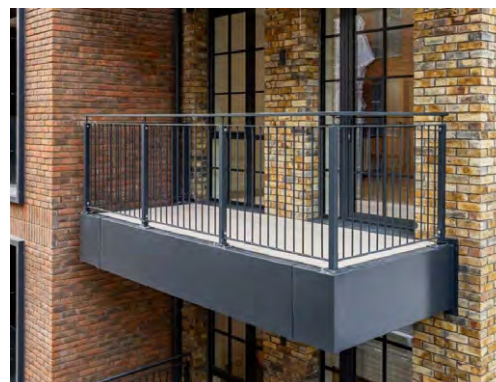
Winter gardens

Enclosed winter gardens are commonly and successfully used where there is risk of noise and in taller buildings without undermining the quality of space or architecture. Winter gardens can be designed with openable panels allowing residents to adjust the internal environment.



Balustrades with solid panels

Detailed wind studies through the RMA process will investigate areas where additional protection from wind may be necessary on balconies. The addition of solid panels to balustrades can be used to provide extra shelter.



Semi-recessed corner balconies

Corners of buildings can experience higher wind speeds. By recessing the balconies in these locations greater levels of shelter is provided.



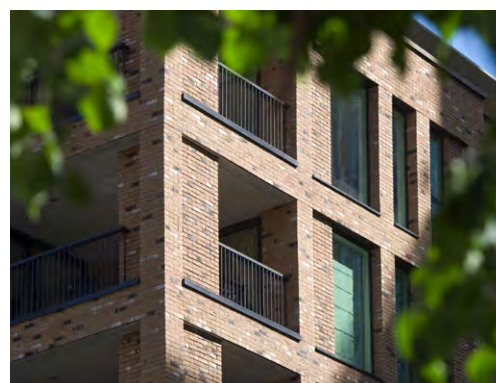
Directing views

A variety of techniques are available where it is advantageous to direct and screen views away from neighbouring sites. These solutions might include blinkered windows, pop out windows or the addition of screens to the sides of windows.



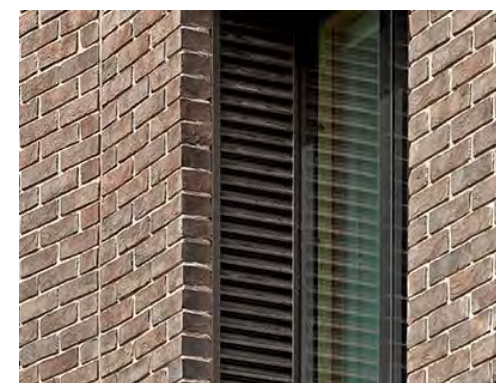
Tall balustrade panels

Further shelter from wind can be provided by tall balustrade panels. This feature can have the added benefit of providing increased privacy and/or shading.



Fully inset corner balconies

Built in corner balconies can be used to further increase shelter and privacy at the exposed corners of buildings.



Mechanical ventilation

In areas where further study finds that natural ventilation cannot be achieved, mechanical ventilation can be introduced to apartments. This solution would form part of the overall energy and sustainability considerations for the site.

Part D Detailing The Buildings

12.5 Residential - Building Elements and Detailing

Entrances

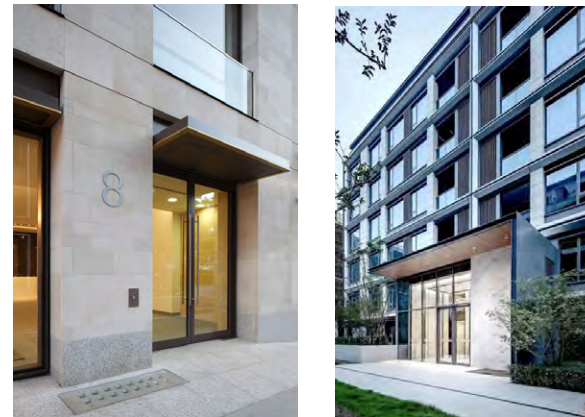
Entrances for the residential buildings should be clearly defined in order to show their importance.

The location should be visible from the public realm and to create a sense of arrival.

Signage, lighting, intercoms, and postboxes should be carefully integrated in the design of entrances to ensure a coordinated approach.

Scale of the entrance should be proportionate to the building size and the number of residents.

The entrance should complement the architectural language of the building.



Porches and Canopies

Porches and canopies should be integral to the design of the elevation and not be overly dominant.

A porch or canopy should be at the residential entrances to provide shelter from the elements.

Porches and canopies should be sufficiently deep to provide meaningful shelter.

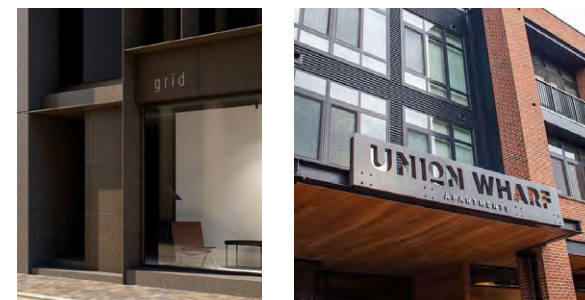
Building canopies to be permitted to project beyond parameter line.



Signage

Signage should be used to help residents and visitor identify the buildings.

All signage should be a consistent design feature throughout the development.



Windows and Doors

Windows and doors should be robust, high quality and of a style and scale which complements the overall character of the buildings.

Window cills are permitted to project beyond the maximum parameter envelope.

Apartment windows should have slim profile frames.

The colour palette should be consistent on all elevations of a building.



Rainwater Goods

Rainwater must be concealed or integrated into the design of the facade.

External rainwater goods should not depreciate from the overall building design.

Locations to be carefully positioned to minimise visual clutter and should be avoided on street facing elevations.



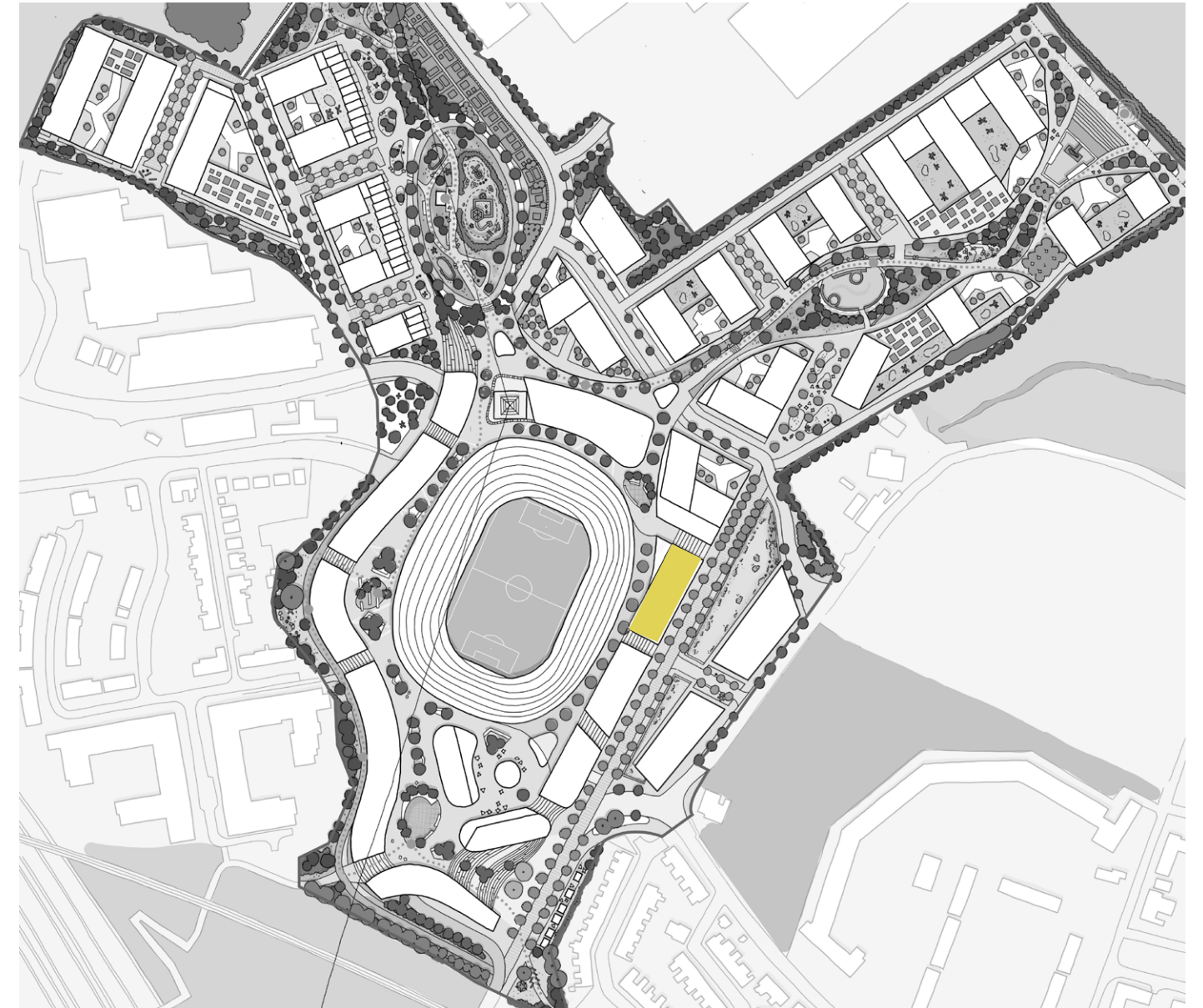
External Amenity space

- Based on the current parameter tested, as set out in ES Volume 1, Chapter 9: Noise and Vibration, mitigation measures are required at external amenity spaces (balconies) at Plots 3, 4, 6-8, 12, 15-19 to ensure that suitable noise levels for private amenity spaces are achieved in line with the relevant guidelines. This may comprise the implementation of acoustic balconies within the detailed design, or consideration of winter gardens at certain locations. Alternatively, additional shared amenity within the development plot could be implemented where appropriate conditions are achieved. If external amenity spaces are considered at these areas at the detailed design stage, further consideration of the detailed designs will need to be undertaken in order to ensure that the required noise conditions are achieved. The assessment of appropriate measures, as relevant, by an experienced noise engineer should be secured through an appropriately worded planning condition.

Part D Detailing The Buildings

13.0 Hospitality

Located between Boulevard Neighbourhood and Marketplace Area; the hospitality building connects the commercial/ stadium with the residential buildings.



Objectives

- The built form should all interrelate creating a consistent aesthetic.
- The materials and external design should make a positive contribution to the Market Place area, Stadium and residential blocks.
- Ground levels façades should provide active frontage, face onto streets, pedestrian paths and podium.
- Building heights should increase from the commercial blocks.
- Building spacing should be considered to ensure that there are comfortable separation distances between habitable rooms.
- The orientation should follow the wind microclimate assessment in order to reduce the windiness across the site and to assist in maintaining wind conditions within acceptable limits.
- The environmental effects should be considered at all stages to ensure that the development has been optimised to amplify positive environmental effects while reducing negative environmental impacts wherever possible.



Form 4 - Single Block

The hotel building is a rectangle shape; a simple form but very efficient.

Part D Detailing The Buildings

13.1 Hospitality - Layout

Horizontal Levels of Deviation

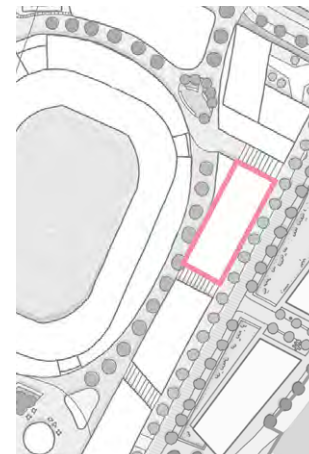
The maximum parameter envelope sets the boundaries for the maximum buildable area of each block and establishes parameters for minimum separation distances between various buildings.



- Built Edge Deviation $\pm 0.5\text{m}$
- Built Edge Deviation (Ground & Podium Level) $\pm 3.0\text{m}$
- Built Edge Deviation (Upper Floor & Tower Levels) $\pm 3.0\text{m}$

Building Line

The building line is the outside surface of the thermal assembly of the facade.



13.2 Hospitality - Access

Objectives

- Ground floor facade will accommodate lobby entrances, amenity areas as well as commercial units.

Requirements

- Entrances must have level access and in compliance with Part M.



- ← Access to the Hotel building (indicative)
- Commercial/Retail entrance (indicative)
- Active frontage at ground floor level
- ← Access from "The Boulevard" to "Winter Gardens"

13.3 Hospitality - Scale

Objectives

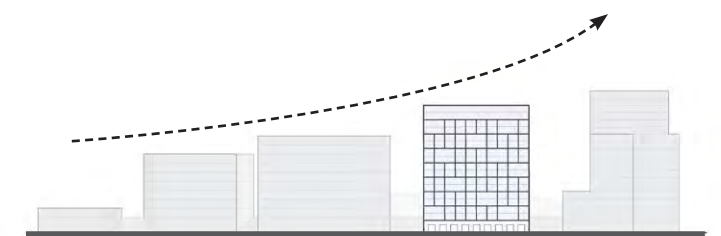
- The 'building height' will be considered the top of the parapet, where the edge of the building meets the sky.
- Rooflines should relate to their immediate surroundings and should be progressive in height to create sensitive development principles.

Requirements

- Any roofs set back from the building face must be within the maximum building height.
- Tops of buildings must fall on or within the maximum building height.



Max. 71.4 m

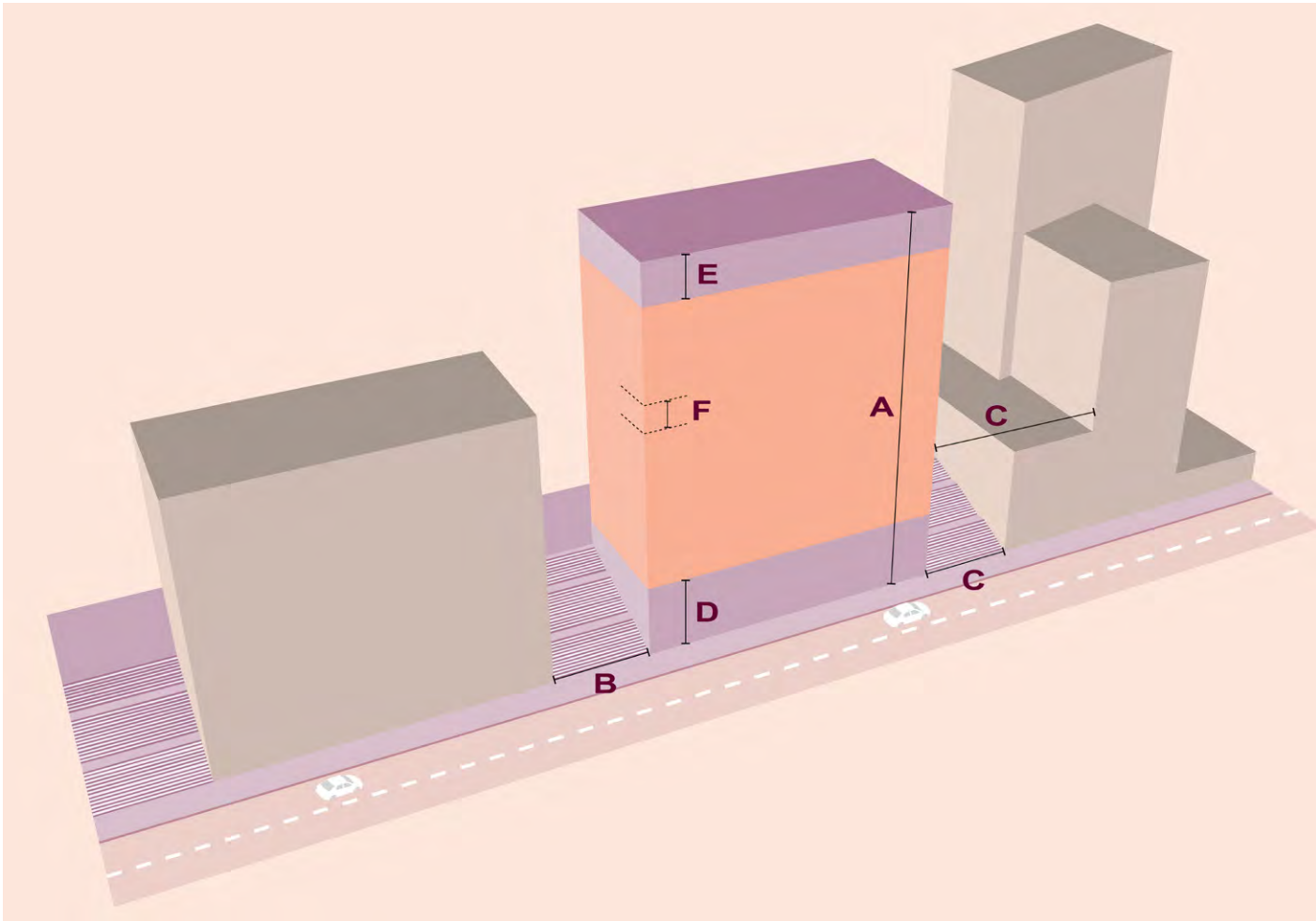


Part D Detailing The Buildings

13.4 Hospitality - Critical Distances

The diagram below illustrates the key relationships between blocks and identifies important critical dimensions.

These are mandatory minimum distances that should be maintained between adjacent façades (not including projecting balconies).



Critical Distances

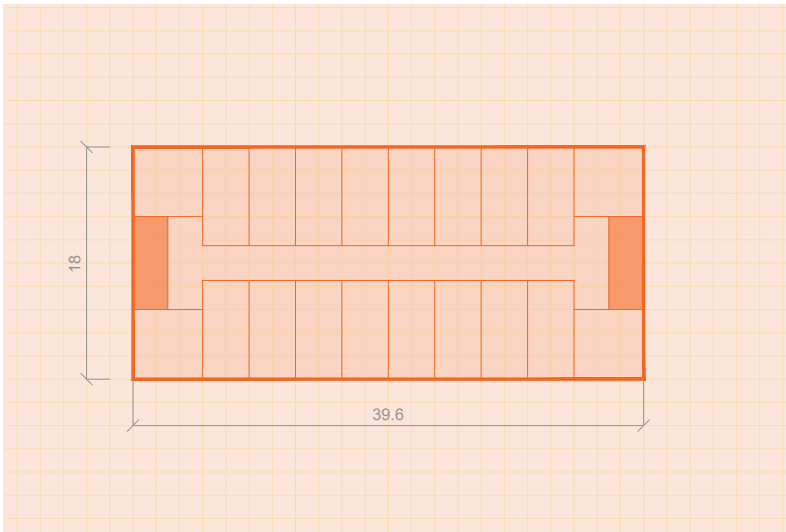
A - Maximum Hotel height:	20 storeys
B - Minimum distance to Commercial Building:	10-15 m
C - Minimum distance to Residential Building:	15-30 m
D - Height of articulated base element:	2-3 storeys
E - Height of articulated top element:	1-2 storeys
F - Height of typical floor:	3.2m

Objectives

- Avoid inappropriate overlooking between adjacent properties.
- Establishing overall physical relationships, while allowing for variation between the expressions of the buildings will contribute to a sense of cohesiveness within the development.
- The dimensions may be greater than the minimum dimensions measured between blocks on the parameter plan.
- Building edges should not impact on the future development potential of neighbouring properties.
- Building edges should be set out to maximize privacy and avoid overlooking in residential properties.

Requirements

- Proposals must demonstrate that the building line falls on or inside the maximum parameter envelope.



Grid

Ideally, hotel buildings should be set out on a 1.8m grid to facilitate internal layouts.

Floorplate depth

For an efficient layout, hotel block should be 16 to 19m (including external wall) in order to accommodate hotel bedrooms along both facade with corridor at the centre.

Core and Circulation

The cores and circulation should be designed in compliance with the latest Building Regulation and guidance to achieve accessibility for all and meet safety standards.

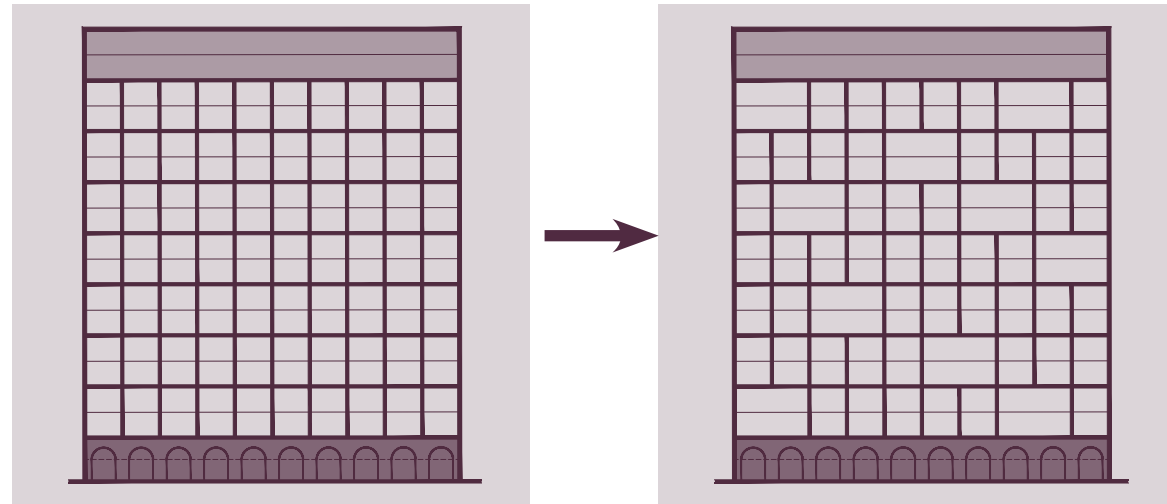
Part D Detailing The Buildings

13.5 Hospitality - Rhythm

Facade Articulation

A variety of features should be employed to assist with breaking up the mass of the blocks and to introduce movement and rhythm into the façades.

Architecture features should vary in scale from overall massing strategies down to the detail level so that the activity is legible from a variety of distances.



The approach to the hospitality block is dynamic facade using the structure grid as base.

The starting point was a basic simple grid with a well-market Base, Middle and Top.

To create a more dynamic feeling, some of the vertical grid were omitted but the overall composition was retained.

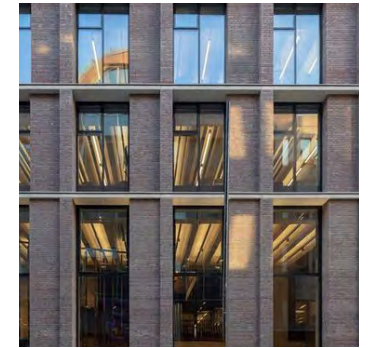
13.6 Hospitality - Appearance

Materials

Masonry is primary material, along with metal features which help to break down the elevations to avoid a long linear block expression by eroding sections of the façade and reducing the elevations to a suitable aesthetic scale.

The palette of materials should be developed holistically to ensure harmony between each set of elements as they move from block to block.

A variety of features should be employed to assist with breaking up the mass of the blocks and to introduce movement and rhythm into the façades, avoiding a monolithic expression.



PRIMARY MATERIAL - MASONRY AND CONCRETE (INDICATIVE)



ARCHITECTURAL FEATURES - METAL (INDICATIVE)

Objectives

- Reasonable consideration should be given to facade articulation to benefit the character of the area.
- Consideration to the existing surroundings, design aspiration and overall composition should be taking into account.
- Distinct entrance to the lobby should be considered.
- Facade should be a response to environmental conditions including daylight/sunlight and ventilation.
- Locations of glazing should be in response to microclimate and views.
- Simple, clean alignments which integrate all facade components to create a legible and ordered appearance.

Requirements

- Insets, setbacks or recesses are permitted since the maximum parameter envelope is followed.
- Proposed buildings that face existing buildings should provide a sympathetic response that demonstrates an understanding of the context and heights.
- Small protrusions that are minor features including pilasters, brise soleil, fins or pronounced mullions are permitted to extend beyond the maximum parameter envelope.
- Glazing to solid ratio should be analysed to avoid solar glare.
- Minimum ventilation requirements per Building Regulations.
- Facade proposals should demonstrate how they differentiate base, middle and top.

Objectives

- Careful consideration has been given to the choice of materials, with a desire for high quality, durability and maintenance requirements.
- Sustainability should be paramount and recycled materials in accordance with the above parameters should be encouraged where possible.

Requirements

- Facade construction comprises non-combustible materials as required by Building Regulations.

Part D Detailing The Buildings

14.0 Meanwhile Use and Business Incubators



Meanwhile use

Meanwhile use is a term employed for the creative reuse of derelict or disused sites in the years before construction. In the case of Northfleet the proposed phasing will mean that many industrial buildings will remain in situ whilst initial phases of development are completed and are likely to be vacated at different stages of the projects as existing tenants find alternative premises.

In this scenario meanwhile use and/or business incubator space should be carefully considered and implemented within the vacated structures/sites providing new and exciting facilities for the residents and businesses of Northfleet.

The aim of future meanwhile use is to reinvigorate an otherwise vacant area, creating animation and intrigue within the area for future development.

Key Principles:

- Meanwhile developments should be sustainably constructed and where possible utilise existing structures or materials to facilitate the project.
- Where possible uses should carefully correlate with those provided within Northfleet Harbourside to ensure continuity for users as the remainder of the masterplan is realised.
- Meanwhile use projects should be developed alongside the residents of Northfleet and Gravesend, ensuring that emerging projects will be supported and patronised by existing residents.
- The design aesthetic of meanwhile projects should take inspiration from elements of the emerging Northfleet Harbourside project ensuring that meanwhile use is intrinsically linked to the future development of the site.

Meanwhile use, business incubator and industrial reuse project examples
Copeland Park Peckham
MFO Park Zurich
Gusto Headquarters San Francisco
Bull Music Academy Madrid



Example - Copeland Park Peckham

Copeland Park was one of the first meanwhile projects in England creating creative studios, business incubator space and a lively events venue for Peckham residents. The project showcases local artists and is often used for exhibitions, workshops and creative festivals facilitated by the creative adaptation of the existing industrial buildings and surrounding car parks.



Example - MFO Park Zurich

MFO Park was created on the site of an old machine factory (Maschinenfabrik Oerlikon) using the existing structure of the factory to create a striking vertical parkland within the new urban district of Zurich Nord. This facility is frequently used for cultural events such as festivals and open air movie theatres and is open at all times for residents to enjoy.



Example - Business space San Francisco

Once a machine shop for military destroyers and submarines, this industrial structure was radically transformed to create a creative workspace for Gusto. This adaptation retained the character and scale of the industrial building introducing open place workspace and meeting pods on the two mezzanine levels whilst collaborative space fills the main central hangar.



Example - Bull Music Academy Madrid

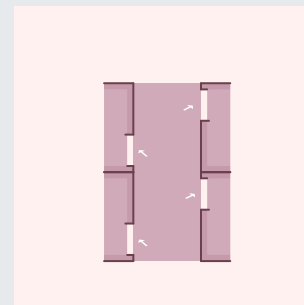
The Bull Music Academy was designed by Langarita Navarro Arquitectos as an emergency structure for the annual music festival when its location in Tokyo fell through. It utilises an existing warehouse as a canopy with varied temporary pavilions interspersed throughout. The project is designed to be 'lightweight' capable of being dismantled or adapted easily throughout the course of its lifespan.

Part D Detailing The Buildings

15.0 Standard Design Requirements

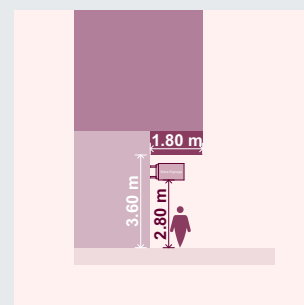
Retail Entrances

Entrances should be located at a consistent point on the façade with all units creating a clear rhythm along the building. Adjoining entrances should be avoided where possible to improve pedestrian flow. All thresholds should provide level access for disabled users and employ the accent material palette in order to clearly identify access points.



Signage

Signage should be considered from the outset of the design and should be incorporated clearly within the public frontages of the design. Commercial signage should be consistent with the overall chosen aesthetics. Back of house units can be used in appropriate locations to facilitate way-finding.



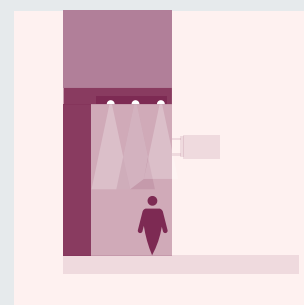
Ventilation Strategy

Natural ventilation should be utilised alongside MVHR (or other sustainable) systems to regulate temperatures when needed. All floorplates should have a 600mm horizontal ventilation zone internally and ducts/vents should not be visible on the facade unless part of the original design intent.



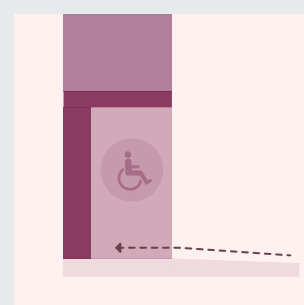
Lighting Strategy

Down lighting should be provided under all canopies to ensure a safe and welcoming environment at all times. Consistent street lighting should be integrated at both low and high level. Dark, dead end spaces should be removed insofar as possible.



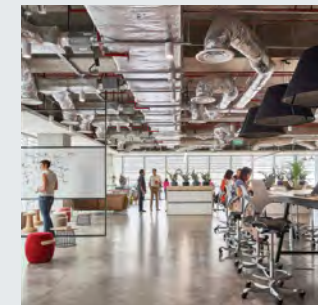
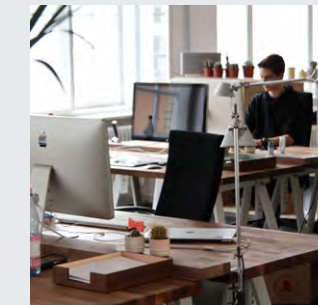
Accessibility

Accessibility for everyone should be considered at all times both within the buildings and at external thresholds in accordance with Part M of the building regulations. Where possible level transitions should be non-divisive ensuring that all visitors use the same means of transportation.



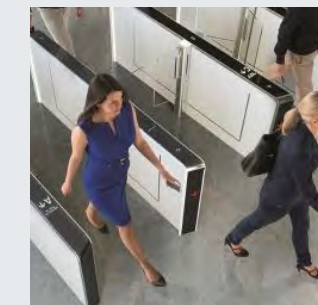
Occupancy Standards

General workplace density should not exceed the BCO guide to specification update 2022 recommendation of 10m² NIA per worksetting. Consideration should be given to ensure that floorplates are highly flexible allowing for hybrid worksettings in addition to desks.



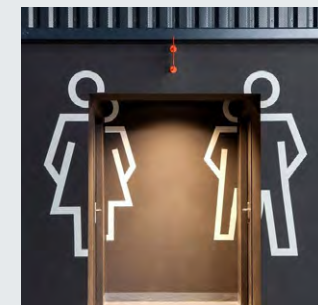
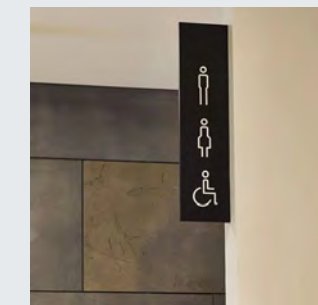
Security

Security should be considered through application of the principles of Crime Prevention through Environmental design (CPTED). Physical security measures should be well integrated as part of the design and should not be a prominent design feature. Shop fronts should use shatterproof, toughened or laminated glass.



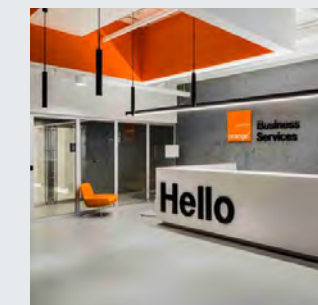
Sanitary Provisions

Toilets and shower facilities should be provided in accordance with BS 6465 and should be easily accessible for all building users. Toilets should be located within the cores and should allow for successful subdivision of the floorplate if required.



Finished Floor Levels

All Finished Floor Levels of 'more vulnerable' development will be raised 600mm above the tidal breach 2100 flood level for each building. There will be some areas where reception areas and entrances will be required to be located at ground level, below the flood level, however the vulnerable areas of these land uses will be raised above the flood levels where appropriate.



Cycle and Locker Provision

Cycle and locker provision should allow for a minimum of 1 locker and 1 cycle space per 10 staff in accordance with the BCO guide to specification update 2022. Cycle storage should be provided in a centrally accessible location and should be provided in a secure, internal location.

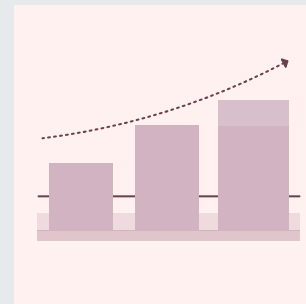


Part D Detailing The Buildings

15.0 Design Requirements - Commercial Office Buildings

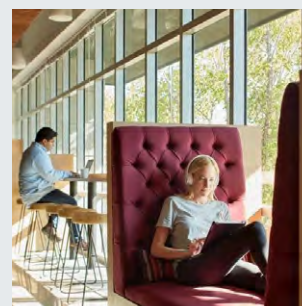
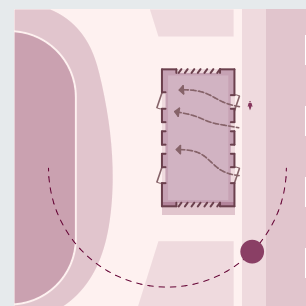
Articulating the Roofline

Rooflines should relate to their immediate surroundings and should be progressive in height to create sensitive development principles. Flat roofs should be predominantly utilised with a minimum finished fall of 1:80 in accordance with BS6229:2018.



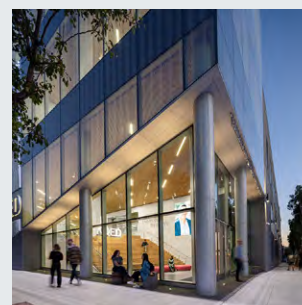
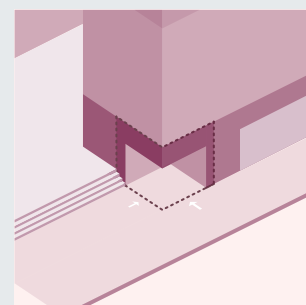
Orientation

Orientation of commercial buildings should take into account thermal comfort and sustainable servicing through the minimisation of southern and northern façades, integration of solar shading on southern façades and the provision of openable windows to maximise cross ventilation. Appropriate façade mitigation, e.g. glazing specifications, will be implemented to meet the indoor ambient noise level criteria recommended in BS 8233:2014;



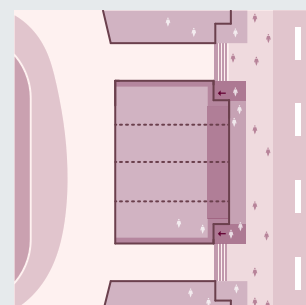
Corner Junctions

Corner junctions should be clearly identifiable and should be articulated utilising a recessed facade with an overhanging entrance structure. This set-back can be continued into the ground floor articulation but corners should be clearly identifiable to create a clear wayfinding structure.



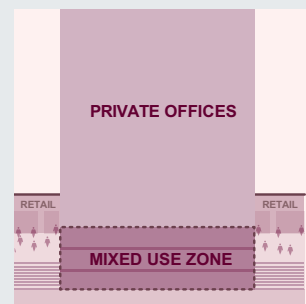
Office Entrances

Office entrances should be located so as to provide maximum flexibility for the retail uses at ground floor providing the ability to accommodate larger or smaller units depending on demand. Entrances should be clearly articulated and provide for overspill activity where possible.



Public and Private Zones

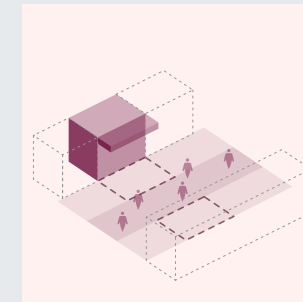
The first three storeys of each commercial block should provide a mixture of public and private zones providing clear interaction with the street along its length. Private office space should be avoided on street level where possible.



Design Requirements- Marketplace

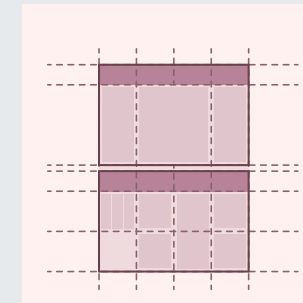
Overspill activity

Provision should be made to ensure that overspill activity is encouraged where possible creating a varied edge along the marketplace which can change from day-to-day. This is particularly relevant in areas where public realm interventions are planned to allow places for people to congregate.



Frontage

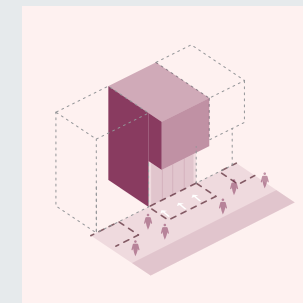
Frontages of units should be predominantly glazed to allow for effective window displays. Fenestration should be carefully designed and set out on a consistent grid that can be replicated across all typologies.



Design Requirements- Community Edge building

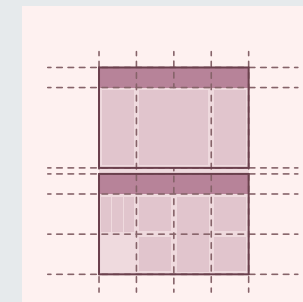
Overspill Activity

Provision should be made to ensure that overspill activity is encouraged where possible creating a varied edge. With community oriented activities, spaces must be designed to accommodate weekend activities such as farmers market and seasonal produce markets.



Frontage

Frontages of units should incorporate glazing where appropriate in order to provide activation on the community edge. At second storey level windows and openings are encouraged in accordance with the programme of each unit.



Roof Level Plant Zone

The maximum building height parameters include a +1.5m plant zone. Roof design will be subject to future detailed design to come forward through RMA's.

Part D Detailing The Buildings

15.1 Standard Design Requirements - Waste and Recycling Storage Collection

Location

- Buildings will have an off-street collection area at ground level.
- Waste storage facilities will not block any utility service points.
- Bins pose a hazard for pedestrians, especially blind or partially sighted people and those who use wheel chairs or pushchairs. Bins will not be left unsecured or positioned on the public footway.
- Built bin storage area doors will not open over the public footway or road. Particular considerations would apply to listed buildings or buildings in a conservation area.
- Waste storage areas will not obstruct sight lines for pedestrians, drivers and cyclists

Convenience

- Residents will not carry waste more than 30 metres from their individual units to the bin storage areas.
- Waste collection crews and caretakers will not:
 1. Carry waste sacks more than 15 metres;
 2. Carry bins or move wheeled bins (up to 360 litres) more than 10 metres;
 3. Manually navigate flights or steps or steep slopes or marked changes in level;
 4. Move larger wheeled bin more than 10 metres; or
 5. Cross a main, dual road or cycle pathway in order to deposit or transfer waste.

Screening or Covering

- The waste and recycling containers housed will be big enough to fit as many containers as are necessary to facilitate collection and will be high enough for lids to open and close where lidded containers are installed. Internal housing layouts will allow all containers to be accessed by users.
- Bins will be fitted with close fitting lids to prevent vermin access.
- Internal built storage areas will conform to BS 5906:2005.

Signage

- Waste and recycling storage areas will be marked, and signs should be provided in the bin stores.
- There are a number of industry standard colours that are accepted for different categories of waste and recycling. These will not to be used when the bin doesn't hold the specific waste and recycling category.
- Users will be made aware of the fire risk from waste and recycling storage. This will be done using signage and displaying the danger when waste and recycling materials are stored carelessly.
- All roads will be clearly marked and controlled to prevent unauthorised parking

Accessibility

- Waste and recycling storage areas will be located in a position that provides easy and safe access for both waste and recycling producers and collectors. In addition, this will also provide an ease of use for older persons, persons short of stature and people with disabilities.
- Internal and external facilities for buildings will be designed for older persons and persons with disabilities as set out by the Disability and Discrimination Act (DDA), as specified in BS 8300:2001 (Ref. 25).
- Waste and recycling storage areas will provide a clear turning circle with a minimum diameter of 1,500 mm for wheelchair users, as specified in Part M of the Building Regulations (Ref. 26) and shown in Figure A.

Access Paths and Roads

- All doors and pathways will be 200 mm wider than any bins that are required to pass through or over them.
- Routes from bin storage areas to collection points will be as straight as possible with no kerbs or steps. Gradients will be no greater than 1:12 and surfaces should be smooth and sound, concrete rather than flexible. Dropped kerbs will be installed as necessary.
- There will be no steps and projections at the entrance of a bin store.
- The bin store will be external to the building or capable of being isolated from the main building. This will ensure access to the main building will not be used through the bin store.
- Roads will have a minimum width of 5 m.

Vehicle Access

- Adequate waste and recycling storage arrangements will be made so that waste and recycling does not need to be placed on the public highway other than immediately before it is due to be collected.
- Roads will be arranged so that collecting vehicles can continue mainly in a forward direction.
- Vehicles will not be reversing.
- Vehicles operating in service areas will enter and leave in a forward-facing direction.

Materials and Finishing

- The walls and roofs of the bin store will be formed of non-combustible robust and secure materials with a smooth finish suitable of washing down. The door of the bin store will be made of steel.

Safety and Anti-social Behaviour

- Location of the bin store will be considered to minimise environmental impacts and nuisance from anti-social behaviour.
- The door of the bin store will be capable of being opened from the inside as well as the outside for reasons of safety.
- Unsightly bins can damage the visual amenity and contribute to increased level of anti-social nuisance such as odour and litter. Therefore, bins are planned carefully and will not be stored in a publicly accessible area

Fire Safety

- Stored waste and recycling material will be identified as a potential hazard in any fire risk assessment.
- Internal bin stores will be constructed within a fire compartment structure which is designed to contain a fire.
- Suitably sized manual fire extinguishers will be deployed. For larger risks, a dedicated automatic fire sprinkler or water mist system will be considered.
- The walls and roofs of the bin store will have a fire resistance of one hour when tested in accordance with BS 476-21. The door of the bin store will be made of steel or have a fire resistance of 30 minutes when tested in accordance with BS 476-22.

Part D Detailing The Buildings

15.1 Standard Design Requirements

- Waste and recycling storage collection

Ventilation and Lighting

- Bin stores will be lit to be safe for facilities management team and collection operatives to use and service during darkness hours.
- Permanent ventilators will be provided giving a total ventilation area of not less than 0.2 m². Passive ventilators will be fly and vermin proof and will be located near to the ceiling and floor of the bin store as possible but away from windows and dwellings.
- Electrical lighting will consist of sealed bulkhead fittings with houses related to IP65 in BS EN 60529:1992 (Ref. 27) for the purpose of cleaning down with hoses and inevitable splashing.
- Luminaires will be low energy light fittings or low energy lamp bulbs, controlled by a proximity detection or time delay button to prevent lights being left on.

Maintenance

- Arrangements will be made for the cleaning of the bin store with water. A hose union tap should be provided in agreement with the local water authority and the Environment Agency.
- The floor of the bin store will have a suitable fall towards the drainage point. Gullies will be positioned not to be in the track of container wheels and should incorporate a trap which maintains a seal, even during prolonged periods of disuse.

15.2 Standard Design Requirements

- Solar Glare

The potential for solar glare will be considered throughout the detailed design process for Plot 2, 3, 4 and 5 blocks and potential effects will be mitigated through the below measures to ensure that effects are reduced and not significant:

- Orienting the façades to not reflect sunlight at a particular time or place;
- Reducing any large areas of glazing or reflective cladding;
- Introducing fins to minimise reflections from a particular section of the façade; and/or
- Blocking the view of the building in question from receptors such as through planting trees in the line of sight.

Further Lighting Design Considerations:

- Ensuring that any external lighting, such as the stadium, does not directly illuminate the sky;
- Ensuring that any external lighting visible from any sensitive receptor is of low intensity;
- Avoiding external lighting which directly illuminates the SSSI and the harbour in particular;
- Provision of blinds for commercial offices;
- Lighting strategies that reduce the output of luminaires closer to the façades; and
- Light fittings controlled through the use of sensors which switch on and off the light according to office occupancy.

15.3 Standard Design Requirements

- Wind Microclimate

(with reference to ES Volume 1, Chapter 11: Wind Microclimate)

Amenity Spaces

- Any dwelling spaces (e.g. a standing or sitting space) which are located within regions which are suitable for leisure walking conditions (or windier) would not be suitable for use when considering the maximum parameters assessed. These regions should be designated within the design of the amenity spaces to be transitory spaces rather than dwell spaces, to ensure suitable conditions. However, if dwelling spaces within these regions are considered at the detailed design stage, further wind testing of the detailed designs will need to be undertaken, with the testing of appropriate mitigation measures (such as localised screening or planting) in order to ensure that the required wind conditions are achieved. As the amenity spaces in these locations may be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer, if required, should be secured through an appropriately worded planning condition; and
- Any seating areas within amenity spaces which are located within regions which are suitable for standing conditions (or windier) would not be suitable for use when considering the maximum parameters assessed. Seating areas should not be included in these areas without appropriate mitigation to ensure suitable conditions. If seating areas within these regions are considered at the detailed design stage, further wind testing of the detailed designs will need to be undertaken, with the testing of appropriate mitigation measures (such as localised screening or planting immediately adjacent to the proposed seating areas) in order to ensure that the required wind conditions are achieved. As the amenity spaces in these locations may be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer, if required, should be secured through an appropriately worded planning condition.

Building Entrances

- Any entrances which are located in unsuitable regions (leisure walking or windier conditions) will be recessed by at least 1.5m (or similarly protected) to ensure pockets of calms conditions immediately adjacent to the entrances. However, if non-recessed entrances are considered within these areas at the detailed design stage, further wind testing of the detailed designs will need to be undertaken, with the testing and implementation of appropriate mitigation measures (such as localised screening or planting adjacent to the entrance location) in order to ensure that the required wind conditions are achieved. As entrances within areas with leisure walking or windier conditions may currently be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer, if required, should be secured through an appropriately worded planning condition.

Residents Amenity Terraces

- Solid perimeter screening (2m high) will be utilised within the detailed design at locations where significant wind effects were identified at residential amenity terraces in order to establish habitable conditions relevant to the roof terrace use. However, if less significant screening is required at the detailed design stage, further wind testing of the detailed designs will need to be undertaken, with the testing of appropriate mitigation measures (such as localised screening or planting adjacent to seating areas) in order to ensure that the required wind conditions are achieved. As the terraces in these locations may currently be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer should be secured through an appropriately worded planning condition.

Part D Detailing The Buildings

15.3 Standard Design Requirements

- Wind Microclimate

Balconies

- Significant wind effects ranging from minor to major adverse were identified for potential balcony locations. In order to mitigate this, the following controls with regards to the detailed design specify regions where mitigation and further testing are required if protruding balconies are proposed. With reference to Figure 11.27 of ES Volume 1, Chapter 11: Wind Microclimate, this includes:
- Any protruding balconies within regions noted as having sitting and standing conditions would be expected to be suitable for use with standard balustrades (e.g. 1.1m high railings, metal balustrades, solid glass balustrades or a combination);
- Any protruding balconies within regions noted as having leisure walking conditions would require measures such as solid glazed balustrades or raised height (e.g. 1.5m) porous balustrades. Further wind testing of the detailed design would confirm the suitability of protruding balconies at these locations with the inclusion of relevant measures (such as glazed or raised height balustrades). As wind conditions at protruding balconies in these locations would be unsuitable for use without the implementation of these measures, the implementation of these measures or assessment of alternatives by an experienced wind engineer should be secured through an appropriately worded planning condition; and
- Based on the current parameters tested, protruding balconies in regions noted as business walking and uncomfortable conditions would not be suitable for use. Alternative options to protruding balconies (e.g. winter gardens) should be explored at these locations within the detailed design. However, if protruding balconies are considered within these areas at the detailed design stage, further wind testing of the detailed designs will need to be undertaken, with the testing of appropriate mitigation measures (such as 2m high solid side panels or fully enclosed spaces with openable fenestrations) in order to ensure that the required wind conditions are achieved. As protruding balconies in these locations would currently be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer should be secured through an appropriately worded planning condition.

Bus Stops

- The final location of on-site bus stops will be determined during the detailed design of the Proposed Development. Any proposed bus stops above podium level located within regions suitable for leisure walking or windier would not be suitable for use. In order to mitigate this, bus shelters with solid side panels should be explored at these locations as necessary within the detailed design. As bus stops at podium level in these locations would be unsuitable for use without the testing and implementation of further measures, the assessment of appropriate measures by an experienced wind engineer, if required, should be secured through an appropriately worded planning condition.

Off-site

- If in the future access is proposed within the area to the immediate east of the site (to the north of Robin's Creek), the detailed landscaping design of the north-eastern extent of the site will need to consider additional mitigation in order to resolve a localised area of off-site wind safety risk. This location is also currently inaccessible to the public and in part comprises bare ground used by the existing on-site aggregates works (which will be displaced to allow for the Proposed Development to come forward). When considering the implementation of the illustrative landscaping, the area of wind safety risk is reduced to be extremely localised, therefore demonstrating that the implementation of additional measures on the north-east corner of the site would likely resolve this issue. The assessment of appropriate measures by an experienced wind engineer should be secured through an appropriately worded planning condition if access at this location is envisaged in the future to ensure that this localised area of off-site wind safety risk is resolved within the detailed design.



**Northfleet
Harbourside**

Part E Detailing The Place

Northfleet Harbourside

- 16.0 Furniture and Signage
- 17.0 Lighting Strategy
- 18.0 Public Art Strategy
- 19.0 Productive Landscapes
- 20.0 Ecology and Biodiversity
- 21.0 Play and Outdoor Sport
- 22.0 SuDS Drainage and Blue Infrastructure
- 23.0 Soft Landscape
- 24.0 Hard Landscape Materials
- 25.0 Site Level - Podium Level Mediators

Part E Detailing The Place

16.0 Furniture and Signage

The street furniture and signage should be consistent throughout the site, creating a sense of continuity in the public realm. The palette of street furniture and signage should be of high quality and aid in reflecting street hierarchy. It is accepted that new processes, availability, new standards, and guidance may affect the selection of street furniture and signage as the project develops. Therefore, the palette should be seen as indicative.



Colourful bike stands



Drinking fountain



Signage incorporated into the facade

Requirements:

- During street furniture and signage selection, priority must be given to products that are highly durable, easily repaired or replaceable and in good supply;
- Street furniture and signage must be made from sustainable materials and sourced from local suppliers;
- There must be a range of seating opportunities available throughout the site, such as seating with armrests, backrests, leaning ledges, walls and steps;
- Street furniture must also be located in a range of environments, such as shaded and sunny environments, areas with a sense of prospect coupled with more hidden spaces, group seating and individual seating spaces;
- Where possible street furniture must be combined together, such as lighting and signage to remove clutter from the streetscape;
- Street furniture must be carefully located in places where it is needed, such as cycle stands being positioned near building entrances;
- Signage must be placed in arrival spaces into the site and be clear and legible, using 'you are here' motif to pin point their current location;
- Signage must be consistent throughout the site but must be in various forms, such as totem signage, wayfinding engraved in paving and façade signage; and
- Street furniture which encourages healthy and sustainable living must be adopted such as air pump for cyclists and drinking fountains for refilling reusable water bottles.



Playful group seating elements



Green roof bins



Totem signage



Seating combined with planter



Informative signage



Playful street furniture

Part E Detailing The Place

17.0 Lighting Strategy

Lighting should be consistent throughout the site, whilst also aid in reflecting street hierarchy. Lighting elements selected should be complementary to the space, creating safe, usable and exciting spaces. It is accepted that new processes, availability, new standards, and guidance may affect the selection of street furniture and signage as the project develops. Therefore, the palette should be seen as indicative.

- Engagement with Secured By Design will take place at the detailed design stage and that recommendations from the DOCO will be taken into account at that point.
- Implementation of appropriate lighting systems as part of the detailed design will promote low energy, safe and friendly environments with appropriate lighting levels that 'deter' anti social behaviour, reduce vandalism, and promote safer neighbourhoods even after dark.

Requirements:

- Lighting must be designed in line with British Standard BS 5489-1:2013, BS EN 13201-1:2015 or CIE 115 (or any updated British Standards) in adoptable areas. Fittings must be selected with appropriate IP rating for its situation in accordance with standard EN 60529 (British BS EN 60529:1992, European IEC 60509:1989);
- As further detail into the design progresses, lighting levels will be adequately designed, in accordance with the relevant Institution of Lighting Professional (ILP) Guidelines and the Bat Conservation Trust (BCT) Artificial Lighting Guidance. The detailed lighting strategy will look to minimise unnecessary light spill upon areas of soft landscaping and notable habitats (to be set out within a Landscape and Ecological Management Plan (LEMP), to be secured via condition, as detailed in ES Volume 1, Chapter 14: Ecology and Biodiversity) as far as is reasonably practicable;
- Lighting elements must be energy efficient and must use timers/sensor systems, LED bulbs and be solar powered where possible;
- Lighting elements must be made from sustainable materials and sourced from local suppliers;
- Lighting elements which have a reduced impact on wildlife must be chosen over other elements, with lighting directed downwards, warm tone light and minimum light spread;
- Lighting must be cohesive with a simple palette applied site wide;
- During lighting selection, priority must be given to products that are highly durable, easily repaired or replaceable and in good supply; and
- Where possible lighting elements must be combined with street furniture and signage to remove clutter from the streetscape.



Tree uplighting



Street lighting columns



Overhead festoon lighting



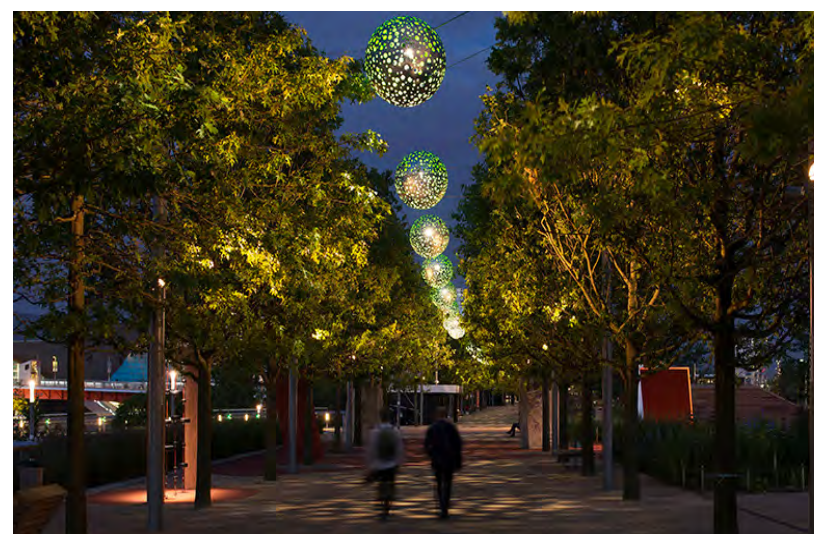
Lighting integrated with furniture



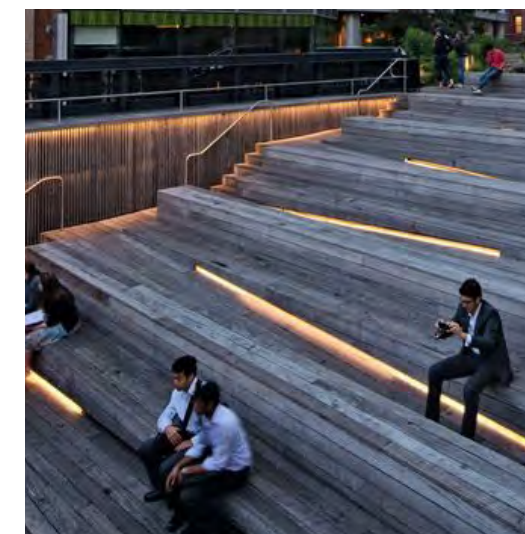
Lighting incorporated into paving



Bollard lighting



Suspended orb lighting trail



Bespoke lighting in the staircase



Focal lighting columns

Part E Detailing The Place

18.0 Public Art and Heritage Strategy

Public art at Northfleet Harbourside should be an expression of the site's unique identity. The integration of art throughout the public realm, should be explored as a site wide continuous thread, referencing the sites history, culture and ecological merits. The creation of public art must involve the future community, to create a sense of stewardship and community pride.

The Proposed Development has aspirations to echo the valued archaeology and heritage of the local area within the public realm. The Applicant will look to discuss effective ways to do this with key stakeholders and statutory consultees. A "Public Art and Heritage Trail Strategy" is to be submitted with each Reserved Matters Application. This will provide certainty over the how the interpretation of the history and archaeology of the site is to be delivered. As examples these could include (but are no means limited to) the use of materials, landscaping, public art, heritage trail, interpretation boards and online digital information (via QR codes etc).



Duncan Grant, Gravesend born local artist



Mary Evans Northfleet, Kent



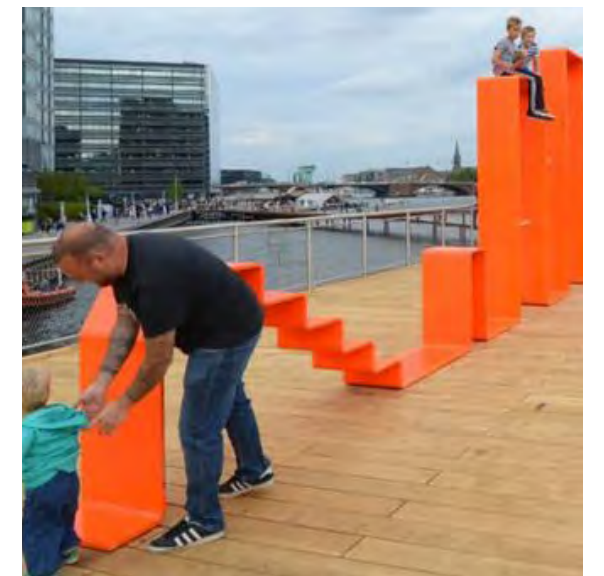
David Cox, Northfleet Kent



Heritage trail where public art tells the story of the local area



Heritage trail where public art tells the story of the local area



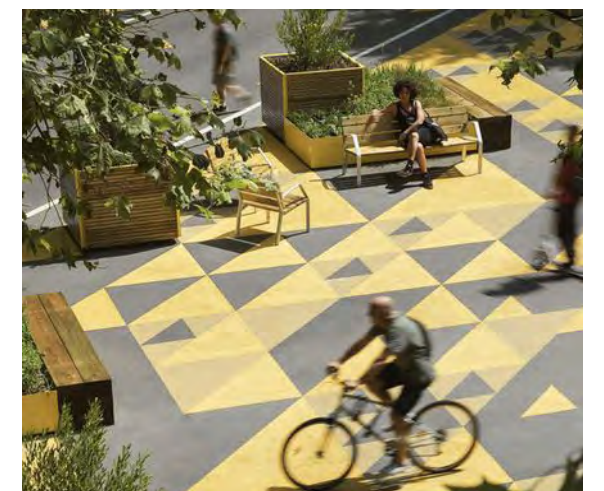
Public art that doubles as a play feature



Local community decorating their local spaces



Sensory public art



Surface graphics

Requirements:

- Public art is intended to be inspired by the unique qualities of the site itself and its local context, including its history, ecology, culture;
- A continuous thread of public art, the Northfleet Trail, is to be implemented, offering a walkable route throughout the site connecting the majority of public art features;
- It is intended to have a variety of permanent public art and a calendar of temporary public art throughout the year;
- Public art is envisaged in a variety of forms including sculpture, paving detailing and lighting features;
- Public art is to be displayed during site construction, enhancing plain hoardings, displaying temporary exhibitions;
- Public art will be in key focal spaces throughout the site and aid in wayfinding;
- Where possible existing site relics must be integrated and re purposed into public art features helping to maintain the sites identity;
- Public art is envisaged and integrated with play where possible and be interactive, offering the ability to climb, offering sensory experiences and the opportunity to learn;
- Public art is to be of interest at night with bespoke lighting; and
- Recyclable and sustainable materials are intended to be used to produce public art features. Additionally public art must be produced on site or locally where possible to reduce travel.

Part E Detailing The Place

19.0 Productive Landscapes

Productive landscape must be offered in a variety of forms, mixing traditional methods such as allotments and community orchards with doorstep food production such as orchard clusters and edible streets. This will allow for multi-generational use of the productive landscapes, providing opportunities for all abilities and ages.

Requirements:

Allotments

A minimum of 0.5ha of allotments must be delivered. Allotments must provide a range of plot sizes, from 60sqm quarter plots down to 25sqm micro plots. They should incorporate storage facilities, water points and parking. Servicing, deliveries and the provision of welfare facilities should be considered.

Community orchards

The community orchards will be delivered through integration with allotments and should include local varieties of fruit and nut trees. They must offer congregation spaces to hold small to medium sized events with seating and tables. Shared use with allotment facilities should be considered.

Edible streets

Edible streets will be integrated within community links or public open spaces. They should provide residents with free access to fruiting trees and edible plants such as vegetables and herbs. They should provide gathering spaces with the potential to hold small events and should provide opportunities for education and hands on learning.

Productive roofs

These locations are flexible but should include planters with herbs and edible plants on roof top amenity spaces. Providing space for residents to grow food and connect with each other.



A selection of allotment plot sizes will be prepared for community use.



Community growing zones provide opportunity to learn about nature, the value of food production and local provenance.



Fruit bearing walls used within public open space can encourage pollinator species such as bees and butterflies



Pollinator friendly planting used within public open space can encourage pollinator species such as bees and butterflies

Part E Detailing The Place

20.0 Ecology and Biodiversity

A minimum of 20% Biodiversity Net Gain will be delivered. The site has limited existing ecology. Where possible existing boundary planting will be retained and enhanced. The following measures must be included.

Requirements:

To be read in accordance with ES Volume 1, Chapter 14: Ecology and Biodiversity:

- Bird and bat boxes (integrated into the walls of buildings and on suitable trees), including features for house sparrows, starlings, swifts and house martins;
- Native and locally characteristic tree, shrub and hedge planting;
- Provision of brown roofs to the north-eastern extent of the site (within the Riverside Neighbourhood Character Area) to allow for suitable habitat for black redstart and other bird species;
- Bug hotels and purpose made bug boxes;
- Wildlife links hibernacula and refugia suitable for smaller fauna including reptiles and amphibians;
- The use of nectar-rich and berry producing plants to attract a wider range of insects, birds and mammals and continue to accommodate those already utilising the site;
- A wildlife sensitive lighting strategy;
- Controlled pedestrian access and signposting displaying the sensitivity of Swanscombe Peninsula SSSI to human disturbance, for example highlighting the potential detrimental impacts of dogs off leads upon nesting birds during the relevant ecological season;
- Access should be managed to the SSSI; for example, fences should be erected at the site boundary to reduce pedestrian footfall to the north-west of the site;
- The provision of an information centre/cafe within the Power Park, next to the play areas, to encourage walks around the site as opposed to within the SSSI, and to provide information regarding notable species and habitats including relevant protection measures within the local area and the SSSI in particular; and
- Boundary of trees between SSSI and site to provide barrier rather than continuation of the SSSI into the site.



Any trees cut down to be retained on site and used as a deadwood habitat



Playful bird and bat boxes in proposed tree planting



Hibernacula provide habitats for a variety of fauna including reptiles and amphibians



Nature focused water bodies are essential for amphibians, wading birds, reptiles and amphibious invertebrates



Pollinator friendly planting used within public open space can encourage pollinator species such as bees and butterflies



Fruiting trees provide vital food sources for a variety of wildlife, as well as people



Sensitive low level lighting can illuminate footpaths with limited impact on foraging routes for nocturnal species



Shallow vegetated swales provide habitat diversity and topographical changes at a micro scale



Planted green/brown roofs

Part E Detailing The Place

21.0 Play and Outdoor Sport

Play Provision

Play provision and outdoor sport must deliver a range of experiences and offer multi-generational activities that are accessible, inclusive and suit all abilities, encouraging social interaction and promoting a healthy community.

The scheme provides a significant amount of new public open space for the area which is capable of delivering a range of recreational play facilities. The public realm is also able to deliver movement through play opportunities, and each residential block is capable of delivering doorstep play.

Policy

A proposal of this scale has opportunity and flex to deliver a range of spaces that provide the necessary play facilities to the appropriate quality and standard. Play provision has been calculated in accordance with Gravesham Borough Council, Open Space Standards Paper, August 2016. These standards have been applied to 3,500 homes based on a ratio of 2.3 residents per unit. The play provision calculations are provided for the purposes of setting upper quantum of development. Future Reserved Matters Applications will finalise the housing mix and resultant play provision in line with the housing needs at that time.

Requirements:

- All play spaces will be accessible via pedestrian and cycle links, promoting active and safe journeys from home to play space, and create an interconnected play network;
- Play spaces will provide adequate seating, be well surveyed and enclosed by landscape features rather than fencing;
- Play and outdoor sport design will adhere to best practice guidance provided by RoSPA, F.I.T. and Play England;
- Outdoor sport will be delivered through a combination of permanent provision, supplemented by temporary offerings, as the phasing of the development progresses;
- Alongside the mandatory formal play provision of NEAPs, LEAPs, LAPs and community play, the play provision will be supplemented by opportunities for self-led wilderness play such as den building within the informal and semi natural open spaces;
- Play spaces will respond to the individual character of their setting and heritage assets, offering unique play experiences and creating stimulating spaces to promote imaginative play;
- Play spaces will have a natural theme using timber based equipment and landscape feature. See examples of good and bad play items and settings in the images opposite; and
- To aid wayfinding, play spaces will have features that children can easily relate to, making them recognisable and easily identifiable. Wayfinding features could include distinctive colours, landmark play pieces, unique materials, public art or clearly articulated themes.

LAP 60m walking distance from all homes. Specifically designated and primarily laid out for very young children to play close to where they live. 100sqm zone.



Play trails through planting



Playful graphics on street



Natural play elements

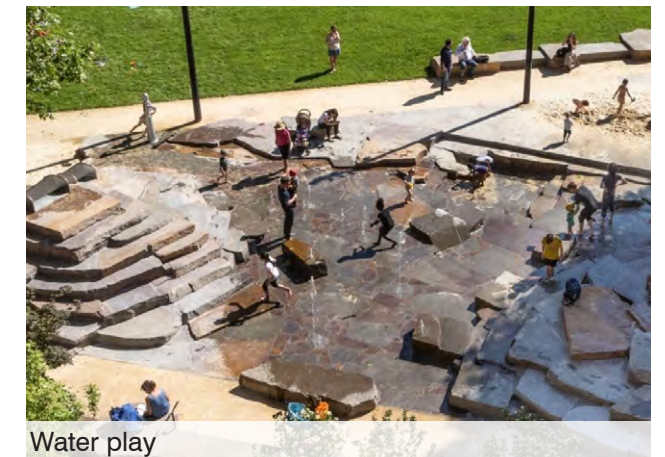
LEAP 270m walking distance from all homes. For children who are beginning to play independently. 400sqm zone.



Cycle and scooter tracks



Vertical play elements



Water play

NEAP 600m walking distance from all homes. Specifically designated, laid out and equipped mainly for older children. 100sqm zone.



Adventure play towers



Different play spaces for different age groups



MUGA's

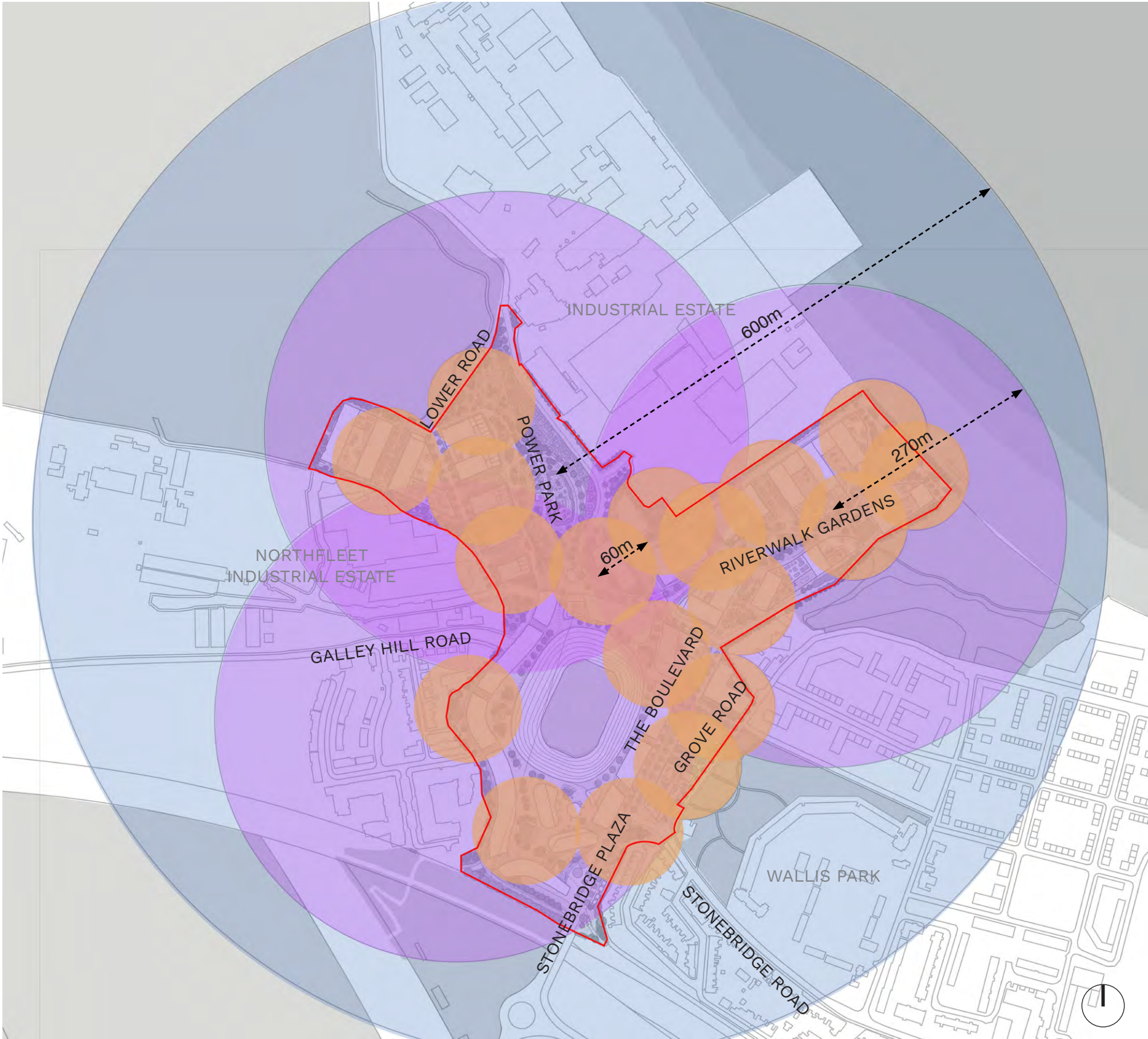
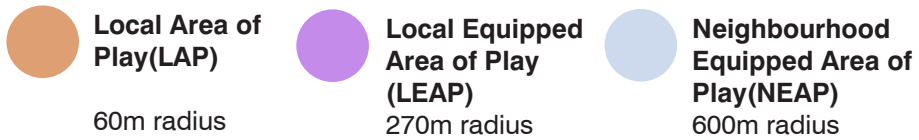
Part E Detailing The Place

21.1 Play Strategy

The play network will help to connect people to places by linking residents and visitors to leisure and work destinations along a network of safe and clearly defined routes. The play space and recreation strategy makes provision, so all homes within the urban area are located not more than one minutes' walking distance from a local area for play (LAP), five minutes' walk from a local equipped area for play (LEAP) and fifteen minutes' walk from a neighbourhood equipped area for play (NEAP), in line with Fields in Trust guidance. Maintenance provision must be provided to a high standard to ensure the aesthetic and functional qualities of these spaces are preserved. The green infrastructure strategy will provide a holistic and fully integrated response to play.

	Local Area for Play (LAP)	Local Equipped Area for Play (LEAP)	Neighbourhood Equipped Area for Play (NEAP)
Minimum activity zone	100m ²	500m ²	1200m ²
Minimum buffer zone	5m	20m	30m
Actual walking distance	100m	450m	1000m
Straight line distance*	60m	270m	600m

Design requirements for formal play space from the National Playing Fields Association guidelines



Part E Detailing The Place

22.0 SuDS Drainage and Blue Infrastructure

The Masterplan has been developed to provide a positive drainage system that is drained into attenuation ponds and permanent water collection areas. These will be located within the green infrastructure.

The creation of such areas for drainage and biodiversity will require specialised design and management. Once created, the ponds and attenuation areas will provide opportunities for colonisation of marginal plants and associated habitats increasing the biodiversity value of the development.

Habitat creation and management practice shall be developed in collaboration with the civil engineers, such that the operations of each shall be cognisant of the objectives and requirements of the other. Sustainable Drainage features shall be designed to promote the interests of both drainage and habitat creation.

Requirements:

- Provision of flood defence on-site to meet the Thames Estuary 2100 (TE2100) standards;
- Diversion and realignment of the Ebbsfleet Culvert on-site to provide a 'betterment';
- Ensure suitable access for future management of the Ebbsfleet river culvert beneath the site, e.g. provision of additional manholes either side of the proposed buildings to allow for access for maintenance and inspection. A management regime of the culvert will also be implemented which will include regular inspection of the culvert, repairs and removal of any debris where required;
- All Finished Floor Levels of 'more vulnerable' development will be raised 600mm above the tidal breach 2100 flood level for each building. There will be some areas where reception areas and entrances will be required to be located at ground level, below the flood level, however the vulnerable areas of these land uses will be raised above the flood levels where appropriate;

As set out in the Conceptual Drainage Strategy, the detailed drainage design will adhere to the following requirements:

- Rainwater Harvesting (RWH) will be used in the residential blocks (where feasible);
- Where green/brown roofs are provided, RoofBloxx or similar attenuation measures will be implemented;
- Swales will be implemented within Riverside Gardens;
- Rain gardens will be implemented where feasible within the Riverside character area; and
- Roof runoff from the Stadium will be directed to shallow tanks beneath the pitch, providing attenuation and water for irrigation.



Inclusion of swales within soft landscape.



Inclusion of wetland areas that dry out.



Inclusion of green and brown roofs.



Inclusion of attenuation basins within the hard landscape



Inclusion of retention ponds where practical



Inclusion of rain gardens in street design.

Flood Risk Management

These are captured within the Design Code submitted with the Outline Planning Application to ensure that the detailed design that comes forward (subject to RMAs) includes such measures.



Inclusion of retention ponds where practical

Part E Detailing The Place

22.1 SuDS Drainage and Blue Infrastructure

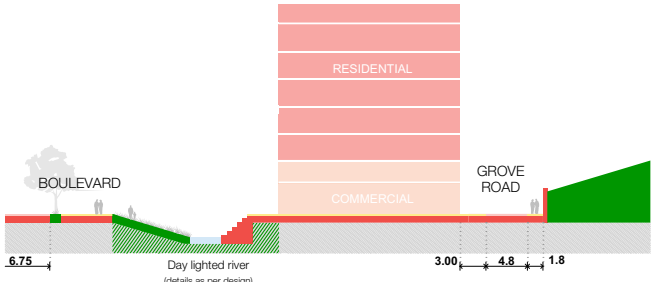
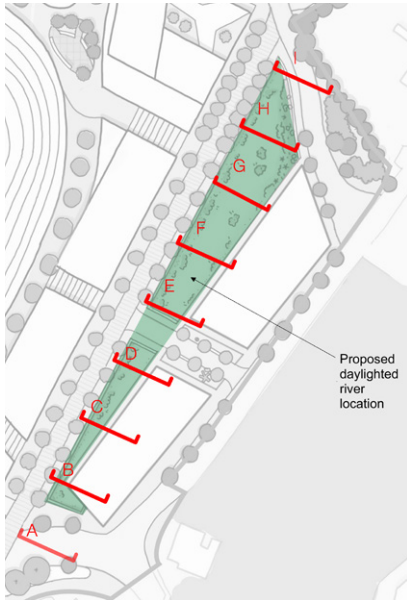
Daylighting the River Ebbsfleet

In response to comments from and dialogue with the Environment Agency and Canals and Rivers Trust, a solution for daylighting the River Ebbsfleet, as it runs along the proposed Boulevard, has been explored and modelled, as illustrated below. The proposed intervention has the potential to add significant character, amenity and biodiversity to the Boulevard charcter area. Technical work relating to this is included in the EIA.

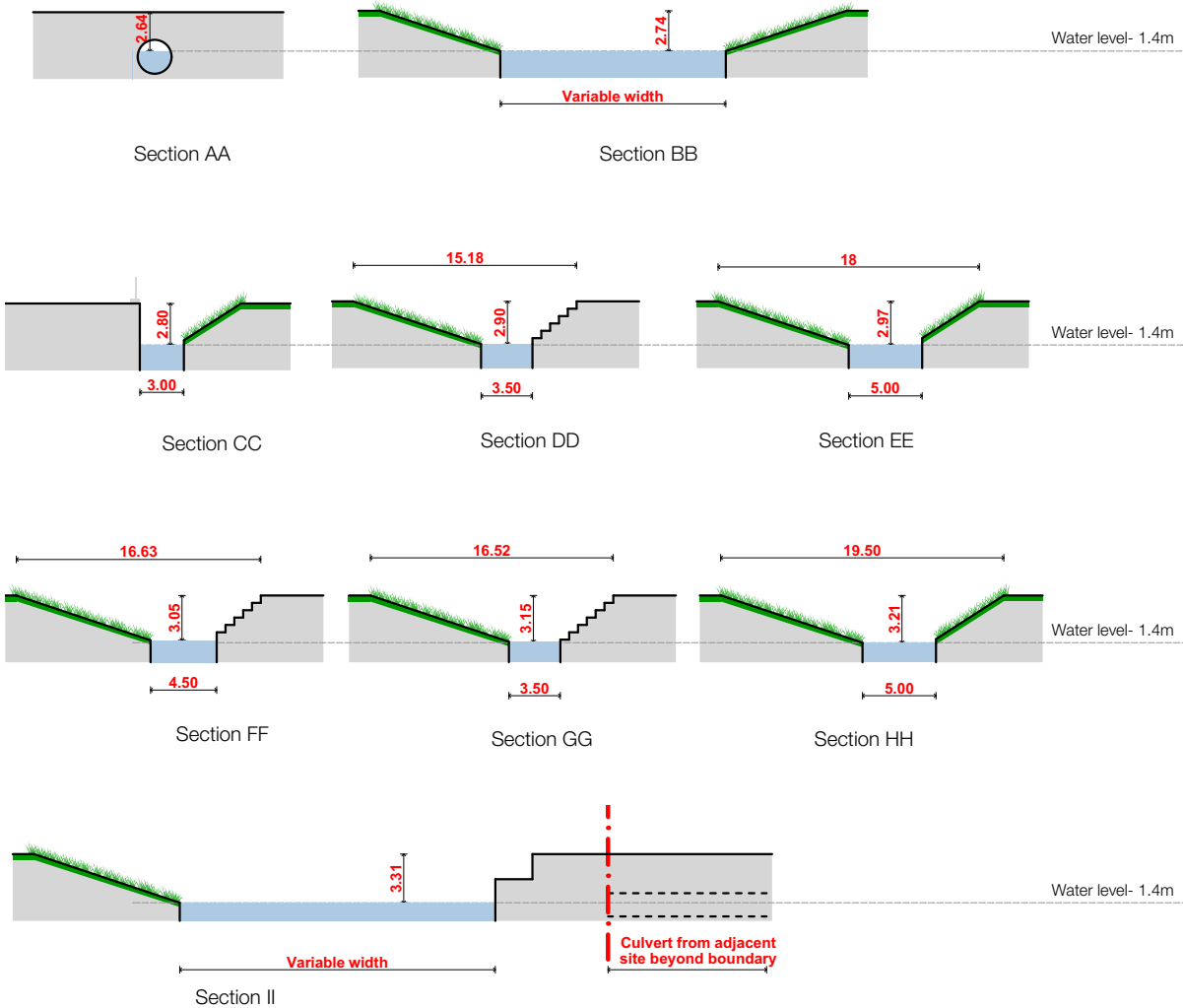
The southern part of the culverted river cannot be de-culverted due to land ownership and its location beneath the existing road.



The series of typical sections demonstrate how the banks of the de-culverted River Ebbsfleet might be designed, showing areas of soft landscape and stepped hard landscape forming the edges. Further design work and feasibility for this area could be taken forward at Reserved Matters, with justification provided for not pursuing this in future submissions, should further technical work demonstrate this is not feasible.



Key section Z-Z indicating position of River Ebbsfleet to building Key to section plans below



Proposed zone for daylighted section of River Ebbsfleet

Examples of daylighted urban rivers

Part E Detailing The Place

23.0 Public Spaces: Placemaking Approach

A High Density, Liveable Place

Northfleet Harbourside will benefit from a wide variety of public spaces with something for everyone. There are lively, sociable spaces such as the Marketplace and Boulevard, two types of waterfront promenade with expansive views over the Thames and Harbour, biodiverse parkland opening out onto the Swanscombe marshes, as well as more intimate neighbourhood spaces off the primary park areas.

The variety of spaces means a variety of opportunity for enjoying the outdoors at different times of the day, year and in different weather conditions. The river front spaces will be perfect for sunny days and the more intimate

spaces provide shelter in more blustery weather. More detailed study of the developments microclimate will be carried out through the Reserved Matters process and the spaces tailored to suit.

For comparison, successful developments with a similar scale of buildings and spaces can be found in and around the local area, such as, Albion Waterside, Enderby Wharf and Ebbsfleet Garden City.



Lively, sociable public spaces

The more lively public spaces such as the amphitheatre area of Riverside Gardens will be a perfect place for the community come together within a high quality landscape setting.



Intimate streets and spaces

Between buildings leading from the main park areas are more intimate residential streets. These spaces will be safe and calm spaces with little or no through traffic, ideal for doorstep play.



Characterful waterside living

Buildings and landscape will be designed together to create a memorable, characterful place interwoven with the DNA of Northfleet.



High density and biodiversity

High density development does not preclude the creation of habitats and biodiversity net gain. Homes will benefit from views onto these ecologically rich spaces and nature will be brought back into the once industrial landscape.



High quality play on the doorstep

The more intimate spaces and courtyards are ideal for sheltered, well overlooked, play as well as quieter places to stop and enjoy the landscape.



Maximising expansive views

The masterplan has been designed to maximise long views from homes over parkland, marsh and river. Views over these expansive spaces balance areas of high density development.



A positive relationship between buildings and green space

The parks will be well used, vibrant hearts of the new community. Homes will have immediate access to the green spaces with mixed uses at ground floor spilling out onto them.



An urban, liveable place

Waterfront areas and the deculverted river make for great places to live. Homes and neighbourhood cafes and bars at ground floors will be designed to make full use of these spaces.



A close-knit community

One of the benefits of high density living is the opportunity to build a strong, close-knit community. Spaces in the landscape will be designed to facilitate this process. Community gardens and gathering spaces will be designed to be sunny, sheltered and well overlooked.

Part E Detailing The Place

23.0 Soft Landscape

Site wide softworks key design objectives:

The layout of the parks and gardens, natural and semi-natural greenspace, allotments, and amenity space provides the opportunity to create a strong interconnected network of planting, contributing to the creation of a habitat mosaic and biodiversity gains. Appropriate planting helps define the character and function of an area, creating distinctiveness and a sense of place.

Existing trees and vegetation

Northfleet Harbourside should be developed to retain vegetation wherever possible or appropriate. Where removals are necessary, they should be mitigated by widespread planting of new trees within both the public realm and semi-private areas.

Requirements:

- Wildlife focused planting must be included throughout Northfleet Harbourside to provide finer grain interconnectivity between the larger habitat areas and to support gains in biodiversity;
- Planting within the public realm should include pollinators as well as fruit, nut and nectar bearing species, favouring UK native and local varieties;
- Formal open space planting should be characterised by swathes of herbaceous planting featuring a high proportion of ornamental grasses. This should be set against a framework of tree and shrub planting. Native shrub planting should characterise informal open space;
- Productive landscape should be distributed throughout Northfleet Harbourside with fruiting orchard trees, edible herbs and plants featuring within public open spaces providing doorstep foraging opportunities for the local community;
- SuDS features such as swales, bio-retention basins and larger attenuation areas within public open spaces and along highways, must be planted. They should include wet meadow grasses, bio-swale vegetation, marginal and aquatic planting to achieve a habitat mosaic. Phragmites should only be planted in large, controlled spaces where they can be more easily maintained;
- Species selection should be robust and resilient to climate change, pollution, water-logging and drought;
- The specification of plant stock must have regard to best practice biosecurity measures. A range of species should be selected to mitigate against potential impacts caused by diseases and other pathogens; and
- Tree stock within the public open spaces should vary depending on its context and purpose, from mature stock for landmark trees and key groups through to young trees as part of the woodland mixes.

Site Wide - Trees and soft planting

Planting Objectives

Site Wide - SuDS planting

The planting palette should draw influence from species aimed at creating and enhancing habitats located within the SuDS and should promote the primary functions of these areas. A mixture of water purifying species, ornamental grasses and water tolerant trees should be used to create a wetland character palette of species.

Site Wide – Primary Roads – Verges

Large formal street trees with large canopies. 2m clear stem to accommodate visibility splays. Trees must be planted with a linear arrangement with spacing reflecting the rhythm of contextual built form, approximately 13-18m spacing. Inclusion of wildflower meadow and pollinating shrub species where possible.

Site Wide – Primary Roads – Junctions

Large feature trees with spreading habit. Possibly flowering and offering seasonal interest. 2m clear stem and high canopy to accommodate visibility splays.

Site Wide - Secondary Roads - Verges

Medium sized trees offering a human sense of scale with 2m clear stems to accommodate for visibility splays. Possibility for fruiting species with seasonal interest. Supported by a rich shrub perennial understorey where possible.

Site Wide – Tertiary Roads

Small street trees with tighter canopy habit with more domestic scale and character. 2m clear stems. Single trees within landscape beds that form traffic calming devices and, on occasion, bookending on-street parking.

Suggested Key Species

Trees: Alnus glutinosa, Betula pubescens, Salix cinerea, Salix purpurea ‘Nana’
Shrubs / grasses / herbaceous: Carex acutiformis, Carex riparia, Eupatorium cannabinum, Iris pseudacorus, isolepis setacea, Juncus effusus, Luzula campestris, Phragmites australis (reedbeds only)
Wildflower meadow: Species rich wet tolerant wild meadows co-ordinated with ecological recommendations

Trees (semi mature): Acer campestre, Alnus cordata, Corylus columna, Quercus robur, Tilia cordata
Wildflower meadow: Species rich meadows co-ordinated with ecological recommendations
Shrubs / grasses / herbaceous: Hebe ‘Margret, Dryopteris flax-mas, Stipa tenuissima ‘Pony Tails’

Trees (semi-mature): Platanus x hispanica, Quercus rubra , Tilia x euchlora
Shrubs / grasses / herbaceous: Allium tuberosum, Lavandula angustifolia, Rosmarinus officinalis

Trees (semi-mature) for min 2.5m wide verges:
Acer campestre ‘Elsrijk’, Alnus cordata
Ginkgo biloba , Prunus ‘Sunset Boulevard’, Tilia cordata ‘Rancho’
Trees (semi-mature) for min 4m wide verges:
Corylus columna, Liquidambar styraciflua, Prunus avium, Tilia cordata ‘Greenspire’
Feature Trees (semi-mature) (where space allows):
Platanus x hispanica, Liriodendron tulipifera
Shrubs / grasses / herbaceous: Corylus avellana, Lavandula angustifolia ‘Hidcote’, Anemone x hybrida ‘Andrea Atkinson’
Trees (Extra heavy standard):
Acer campestre ‘Elsrijk’ - Dutch Field Maple
Malus trilobata - Flowering Crab
Crataegus lavalleyi ‘Carrierei’ - Hybrid Cockspur Thorn
Amelanchier alnifolia ‘Obelisk’ - Alder-leaved Serviceberry



Example of wildlife friendly planting within SuDS



Example of species rich meadows



Example of semi-mature trees along primary roads

Part E Detailing The Place

23.1 Soft Landscape Palette - Marketplace

Marketplace

The Marketplace character area is predominantly on podium level. Careful consideration will be required for topsoil, tree sizes and planting sizes in line with loading requirements in the Reserved Matters Applications. The adjacent table provides further breakdown of the key planting characteristics and suggestive key species. Further detailed planting schedules will be developed in the Reserved Matters Applications.



Exotic planting within the Winter Gardens



Species rich meadows should be included in the Pocket Park



Buffer planting should include deciduous and evergreen trees



Podium planters including SuDS features

Marketplace Character Area - Trees and soft planting

Planting Objectives

Marketplace – Winter Gardens planting

Where applicable winter gardens are intended to showcase unusual and exotic specimens from around the globe on a podium level. With a semi-permeable canopy with openings that encourage semi-natural irrigation. Shrub planting must include shade tolerant, vibrant planting with varied foliage.

Marketplace – Podium planters

The podium planters must where possible form SuDS features. Planting is more intimate, human scale to reflect the enclosed nature of these spaces, with clear stem tree planting suitable for an urban setting. Planting must reinforce vistas, desire lines and frame spaces within the parks. Species selection must be flexible as the character will vary between areas to reflect their unique locations within the masterplan. Planting must offer seasonal interest, colour, varied texture and scent.

Marketplace – Buffer planting

Buffer planting will form a mature structural canopy which must help to screen the development. Including a range of deciduous and evergreen tree species, native species hedgerow with an open ground storey, with low-level spring flora rich in bulbs such as bluebell and ramsons.

Marketplace – Pocket Park

Creating an exciting entrance arrival space must include species rich meadows mounds, groups of native species tree planting and swathes of herbaceous perennial planting.

Suggested Key Species

Tree ferns (Semi mature): Dicksonia antarctica, Dicksonia fibrosa and Dicksonia squarossa
Groundcover and grasses: Pachysandra terminalis, Arum italicum, Polystichum setiferum, Bamboo sp, Fatsia sp, Phorium sp

Trees: Acer platanoides, Fagus sylvatica, Liquidambar styraciflua, Pinus sylvestris, Platanus x hispanica, Quercus robur, Sorbus torminalis, Betula pendula
Shrubs / grasses / herbaceous: Allium tuberosum, Lavandula angustifolia, Rosmarinus officinalis

Trees: Acer platanoides, Fagus sylvatica, Pinus sylvestris, Platanus x hispanica, Quercus robur, Tilia x europea, Tilia cordata
Shrubs / grasses / herbaceous: Digitalis grandiflora, Mahonia x media 'Winter Sun', Pulmonaria 'Diana Clare', Skimmia japonica, Geranium pratense, Hedgerow: Crataegus monongyna, Prunus spinosa, Rhamnus cathartica, Ulmus glabra, Viburnum opulus
Bulbs: Colchicum autumnale, Ornithogalum pyrenaicum, Allium schoenoprasum var anglicum, Hyacinthoides non-scripta, Galanthus nivalis, Crocus Speciosus, Crocus vernus.

Trees: Quercus robur, Tilia x europea, Tilia cordata
Wildflower meadow: Species rich meadows co-ordinated with ecological recommendations.

Part E Detailing The Place

23.2 Soft Landscape Palette - Parkland

Parkland

The Parkland character area contains a large percentage of the sites green infrastructure including the Power Park, allotments, and orchards forming significant primary green infrastructure. The adjacent table provides further breakdown of the key planting characteristics and suggestive key species. Further detailed planting schedules will be developed in the Reserved Matters Application.



Ecological planting links with Swanscombe Marshes SSSI



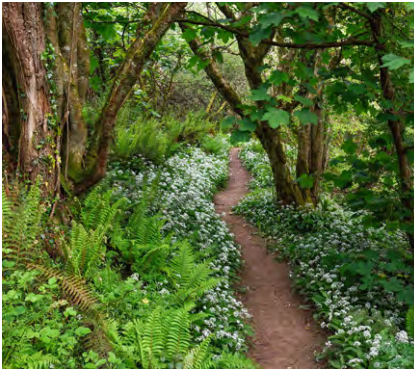
Example of wildlife friendly planting within SuDS



Ornamental fruit and nut bearing trees within allotments and orchard



Townhouse front garden planting character



Woodland glade planting



General ornamental planting character

Parkland Character Area - Trees and soft planting

Planting Objectives
Parkland – Townhouse front gardens Townhouse planting are to respond to its setting and context, with suitable species that complement the ecological and landscape objectives of its surroundings. Species selection must be appropriate for a residential setting, clear stemmed and appropriately offset from buildings. Hedgerow species suitable for residential / building frontages to be primarily single species.
Parkland - Ornamental fruit and nut bearing trees within Allotments and Orchard Areas within the landscape that provide year-round community food sources, accessible by both people and wildlife.
Parkland – Woodland Glade Creating a woodland glade with sturdy robust deciduous and evergreen trees within the Power Park. Understorey must be largely clear of dense vegetation, instead supporting amenity uses and permeability whilst retaining a sense of separation from adjacent built form. Shrub and grass species must be shade tolerant. Inclusion of bulb understorey planting to provide colour and improved structural diversity.
Parkland – Swanscombe Gate The Swanscombe Gate will include mitigation structural planting of deciduous and evergreen trees, native species hedgerows and specimens along the boundary between the Swanscombe SSSI and the proposed development.
Parkland – General planting A combination of mature tree planting and lawn areas with ornamental shrub and herbaceous planting to ensure the Parkland is significantly soft landscaped in character. Species selected must have the form of low to medium sized plants, to maintain good visibility and to remove potential hiding places yet vary in texture, smell and seasonal interest. The use of native species must be encouraged.

Suggested Key Species
Trees: Acer campestre ‘Elsrijk’, Alnus cordata, Amelanchier canadensis, Betula pendula, Sorbus torminalis Shrubs / grasses / herbaceous: Choisya ternata, Cotoneaster lacteus, Nandina domestica ‘Fire Power’, Saracocca confusa Hedgerow: Carpinus betulus, Euonymus japonica ‘Jean Hugues’, Fagus sylvatica, Ilex crenata, Ligustrum vulgare, Osmanthus x burkwoodii Wildflower meadow: Species rich meadows co-ordinated with ecological recommendations
Trees: Cydonia oblonga, Juglans regia, Malus x domestica, Mespilus germanica, Morus nigra, Prunus domestica, Prunus dulcis ‘Macrocarpa’, Pyrus communis
Trees: Acer platanoides, Fagus sylvatica, Pinus sylvestris, Platanus x hispanica, Quercus robur, Tilia x europea, Tilia cordata Shrubs / grasses / herbaceous: Digitalis grandiflora, Mahonia x media ‘Winter Sun’, Pulmonaria ‘Diana Clare’, Skimmia japonica, Geranium pratense, Hedgerow: Crataegus monongyna, Prunus spinosa, Rhamnus cathartica, Ulmus glabra, Viburnum opulus Bulbs: Colchicum autumnale, Ornithogalum pyrenaicum, Allium schoenoprasum var anglicum, Hyacinthoides non-scripta, Galanthus nivalis, Crocus Speciosus, Crocus vernus.
Trees: Acer platanoides, Fagus sylvatica, Pinus sylvestris, Platanus x hispanica, Quercus robur Hedgerow: Crataegus monongyna, Prunus spinosa, Rhamnus cathartica, Ulmus glabra, Viburnum opulus
Trees: Betula pendula, Acer campestre, Prunus avium Shrubs / grasses / herbaceous: Crataegus monongyna, Prunus spinosa, Corylus avellana, Rosa canina, Anemone x hybrida ‘Hororine Jobert’, Hebe species, Allium nigrum, Dryopteris filixmas, Verbena bonariensis, Stipa tenuissima ‘Pony Tails’, Lavandula angustifolia ‘Hidcote’, Wildflower meadow: Species rich meadows co-ordinated with ecological recommendations.

Part E Detailing The Place

23.3 Soft Landscape Palette - Riverside and Boulevard

Riverside

The Riverside character area includes the Riverside Gardens a primary green infrastructure space and Thames public realm planting. The riverside location should include species which are tolerant of high winds and sea water.

Boulevard

The Boulevard character area includes mature deciduous tree planting carefully planted in hard paving and SuDS planters. Further detailed planting schedules will be developed in the reserved matters application.

Riverside and Boulevard Character Area - Trees and soft planting

Planting Objectives

Riverside – Riverside Gardens

A combination of mature, multi-stem species tree planting and lawn areas with ornamental shrub and herbaceous planting, wildflower meadows and rain garden planting. The soft landscape must work hard in adopting a distinctive style and a fairly restricted palette of materials. With a certain degree of added emphasis through repetition of the selected elements. Within this strong framework there must be a series of 'seasonal events' – plants bursting into flower, brilliant autumn colour etc. all of which mark seasonal change. Likewise, plant material will seek to be responsive to location and weather – so preference would be given to plants that move in the wind, rustle and generally intrigue. The Riverside gardens must include areas of lawn planting for seating.

Riverside – Thames view public realm planting

The public realm planting will include ornamental grasses, evergreen shrubs and perennials of year-round interest. Edible herbs and sensory shrubs should be carefully developed in keeping with the River Thames microclimate. SuDS planters should be included where possible.

Riverside – Robins creek

Extensive brown roofs: situated close to Robins Creek to be provided in order to encourage valuable habitat for local bird species, including black redstart. Brown roofs are inaccessible to residents

Boulevard planting

A boulevard landscape character will include formal mature, deciduous tree planting on either side of the road. Sufficient space to be provided to allow trees to grow to a substantial size. Trees must be planted at regular intervals every 1.5m. Trees to be set back a minimum of 1m from the edge of the carriageway and no closer than 3m from the edge of the building façade. SuDS in the form of rain garden pollinating planting or swales must be included where possible.

Suggested Key Species

Trees: Betula pendula, Acer campestre, Prunus avium
Shrubs / grasses / herbaceous: Crataegus monongyna, Prunus spinosa, Corylus avellana, Rosa canina, Anemone x hybrida 'Hororine Jobert', Hebe species, Allium nigrum, Dryopteris filixmas, Verbena bonariensis, Stipa tenuissima 'Pony Tails', Lavandula angustifolia 'Hidcote'
Wildflower meadow: Species rich meadows co-ordinated with ecological recommendations
Lawn: should be included in the Riverside Gardens.

Trees: Alnus glutinosa, Acer pseudoplatanus, Aesculus hippocastanum
Grasses / herbaceous: In more wet coastal conditions the following could be used: Phragmites australis, Typha latifoli, Crithmum maritimum, Salicornia sp, Atriplex portulacoides, Aster tripolium, Limonium vulgare, Zostera (Zosterella) noltei, Scoloplos armiger, Pygospio elegans

Trees: Platanus x hispanica, Quercus rubra , Tilia x euchlora
Grasses / herbaceous: Aronia arbutifolia, Cornus sanguinea 'Midwinter Fire', Hydrangea quercifolia, Persicaria affinis 'Superba', Veronicastrum virginicum 'Album', Carex pendula, Cyperus longus, Iris pseudacorus, Brunnera macrophylla



Multi stem trees should be included in the Riverside Gardens



Buffer planting should include deciduous and evergreen trees



Herbaceous perennial planting should be included in the Riverside and Boulevard



Planters along the Thames view public realm should include evergreen species



SuDS features in the form of rain gardens should be included in the Riverside and Boulevard



Planting integrated should be integrated into stepped seating



Lawn planting should be included in the Riverside character area.



Pollinating species should be included along the Boulevard.

Part E Detailing The Place

23.4 Soft Landscape Palette - Podium Courtyards

Podium Courtyard Soft Landscape

Podium courtyards offer additional semi-private space for residents, allowing them to access green space on their doorstep. The podium courtyards help to supplement the overall green infrastructure of the site. The adjacent table provides further breakdown of the key planting characteristics and suggestive key species. Further detailed planting schedules will be developed in the Reserved Matters Application.

Site Wide - Podium Courtyard Soft Landscape

Planting Objectives

Site Wide - Podium Courtyard

The planting palette must offer a rich sensory experience for users of the courtyards. Small tree species, ornamental grasses and shrubs must offer protection from the predominantly south easterly winds. A rich understorey of colourful perennial species must be combined with bulb planting to offer seasonal interest.

Suggested Key Species

Trees: Betula pendula, Amelanchier lamarckii, prunus serulla, Cornus kousa
Shrubs / grasses / herbaceous: Euphorbia characias subsp. wulfenii, deschampsia cespitosa 'Goldtau', calamagrostis x acutiflora 'Karl Foerster', Cornus alba, Anemone x hybrida 'Honorine Jobert', Rudbeckia fulgida var. sullivantii 'Goldsturm', Salvia officinalis, verberna bonariensis, Achillea 'Terracotta', Viburnum x bodnantense 'Dawn', Mahonia x media 'Winter Sun'
Bulbs: Alium 'Globemaster', Narcissus 'Juanita', Galanthus nivalis

Requirements:

- Communal gardens must include a range of seasonal planting to provide interest year round, including bulb planting;
- Communal gardens must provide protection from south easterly wind through the use of trees and shrubbery located accordingly;
- Lawn areas must be included within the roof gardens to allow for amenity space for events and gatherings;
- The placement of trees must be co-ordinated with architects/ engineers of the building to ensure load bearing is sufficient;
- Species selection must be robust and resilient to climate change, pollution, water-logging, drought and high winds which can be experienced at podium level;
- The specification of plant stock must have regard to best practice biosecurity measures. A range of species must be selected to mitigate against potential impacts caused by diseases and other pathogen.



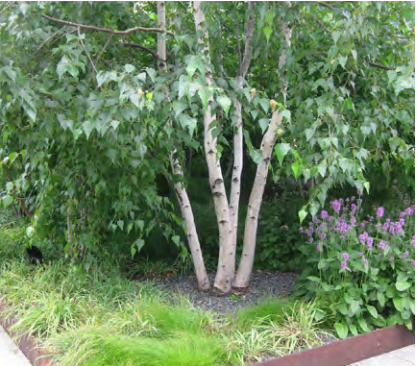
Rich herbaceous beds



Colourful planting display



Planting with seasonal interest



Ornamental multi stem trees

Part E Detailing The Place

24.0 Hard Landscape Materials

The table on the following page highlights appropriate hard materials to be selected for the public realm spaces.

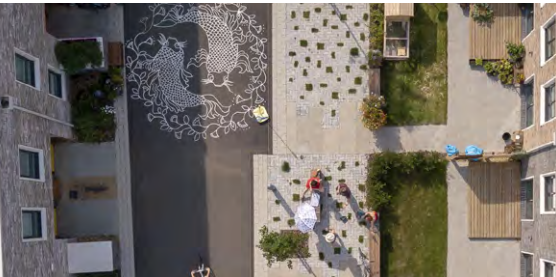
The overall aim of the hard materials palette is to offer enough variety to clearly highlight the various character areas and aid legibility, whilst ensuring a cohesive and harmonious overall appearance.

Requirements:

- When different materials meet careful consideration must be taken as to how they join;
- When a hard landscape space has been constructed in a previous phase, and an adjoining new phase is being constructed, the same materials, detailing and finishes must be used to ensure consistency across the site;
- When hard landscape areas have a particularly curved shape it will be more appropriate to use porous materials, such as resin bound surfacing, over paving blocks, which would create excess waste cut offs;
- Materials must be made from sustainable materials and sourced from local suppliers where possible;
- During material selection, priority must be given to products that are highly durable, easily repaired or replaceable and in good supply;
- When street trees are planted in hard landscape careful consideration must be taken to ensure the good health and longevity of the trees, and avoid subsidence or root heave;
- Key destination areas with high footfall must use high quality materials, such as Thames View and the Marketplace podium;
- The materials palette must help to improve the legibility of the site and contribute to the street hierarchy;
- Where possible permeable paving units must be used and be co-ordinated with drainage specialist;
- All service covers must be flush with the hard surface and filled with the same material. When they are filled with pavers, the pavers must follow the same pattern as the paving surrounding the service cover;
- Paving must be laid using a variety of batches to ensure there are no clear colour changes over the overall surface.

Site Wide - Hard Materials

Primary Roads Carriageways Kerbs and Edging Footways Cycleways Crossing Points Medians/Overruns Raised Tables Bus Stops Tactile Paving	Suggested Key Materials Gray asphalt Silver grey granite kerb stone Various buff tone rectangular flags Red bituminous surface Concrete block paving, dark grey Tumbled setts, various grey colours Buff stone pavers Permeable vehicular sett paving, dark grey with white thermoplastic lining Buff concrete
Secondary Roads Carriageways Kerbs and Edging Footways Cycleways Crossing Points Medians/Overruns Raised Tables Bus Stops Parking Bays	Suggested Key Materials Gray asphalt Silver grey concrete kerb stone Tegula permeable paving setts Red bituminous surface Concrete block paving, dark grey Tumbled setts, various grey colours Buff stone pavers Permeable vehicular sett paving, dark grey with white thermoplastic lining Permeable vehicular sett paving, light grey with white thermoplastic lining
Tertiary Roads Carriageways Kerbs and Edging Footways Crossing Points Medians/Overruns Raised Tables Parking Bays	Suggested Key Materials Permeable vehicular sett paving, buff tones Tumbled stone sett kerb, buff tones Tegula permeable paving setts Concrete block paving, light grey Tumbled setts, various grey colours Buff stone pavers Permeable vehicular sett paving, light grey, with white thermoplastic lining
Heritage Trail Heritage Trail	Suggested Key Materials Concrete or granite pavers with brass plates engraved



Hard materials palette creating a clear hierarchy



Harmonious hard materials, demarcating the raised table



Visual interest through simple paving pattern and colour variation

Part E Detailing The Place

24.1 Hard Landscape Materials

Boulevard

The hard materials selected for the Boulevard have an intricate quality, reflecting a sense of craftsmanship that will highlight this key route through the site. The adjacent hard materials table provides further breakdown of suggestive key materials. Further detailed material schedules will be developed in the reserved matters application.

Riverside

The Riverside character area will feature high quality materials that reflect the industrial heritage of the site, including metal edging and demarcation studs. The adjacent hard materials table provides further breakdown of suggestive key materials. Further detailed material schedules will be developed in the reserved matters application.

Riverside and Boulevard Character Area - Hard Materials

Boulevard	Suggested Key Materials
Primary Boulevard Carriageway	Tumbled vehicular sett paving, buff tones
Staircases to Podium Level	In-situ grey concrete, polished
Northern Boulevard Public Realm	Clay block paving

Riverside	Suggested Key Materials
Primary Riverside Park Footway	In-situ exposed grey aggregate poured concrete
Secondary Power Park Footways	Self binding gravel
Riverside Park Footways Edging	Flush aluminium edging
Thames View Waters Edge Footway	Silver granite flags, various sizes
Thames View Public Realm	Yorkstone paving flags
Thames View Amphitheatre	In-situ poured concrete
Thames View Deck	Composite timber decking
Harbour Gardens	Clay block paving
Food and Beverage Spill Out	Tegula permeable paving setts, pennant grey
Riverside Park Central Public Realm	Buff resin bound surfacing



Tumbled vehicular sett paving, buff tones



Clay block paving



In situ exposed grey aggregate poured concrete



Buff resin bound surfacing



Composite timber decking



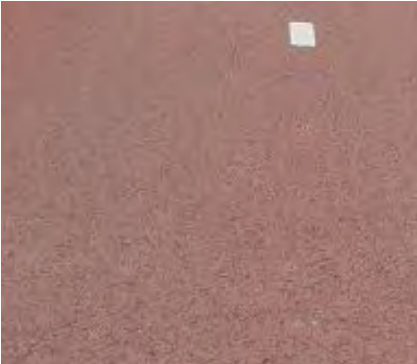
Tegula permeable paving setts, various sizes, pennant grey



Silver granite flags, various sizes,



Rectangular flags, various tones,



Red bituminous surface



Permeable vehicular sett paving,



Flush aluminium edging



Silver grey granite kerb stone

Part E Detailing The Place

24.2 Hard Landscape Materials

Marketplace

A limited and clear palette of high quality materials should be used to create a calm setting for shoppers of the marketplace. The adjacent hard materials table provides further breakdown of suggestive key materials. Further detailed material schedules will be developed in the reserved matters application.

Parkland

The Parkland will have a largely soft and sensory palette of materials, reflecting the Character Areas proximity to the Swanscombe/Botany Marshes SSSI. The adjacent hard materials table provides further breakdown of suggestive key materials. Further detailed material schedules will be developed in the reserved matters application.

Marketplace and Parkland Character Area - Hard Materials

Marketplace	Suggested Key Materials
Main Podium Public Realm	Buff tone rectangular concrete flags, stretcher bond
Staircases to Podium Level	In-situ grey concrete, polished
Goal Square	Yorkstone paving flags
Retail Edges	Conservation blocks, cream and silver grey
Primary Boulevard Carriageway	Tumbled vehicular sett paving, buff tones
Winter Gardens Public Realm	Yorkstone paving flags

Parkland	Suggested Key Materials
Primary Power Park Footways	In-situ poured concrete, buff tones
Secondary Power Park Footways	Buff self binding gravel
Elevated Power Park Footways	Composite timber decking
Primary Power Park Footways Edging	Flush aluminium edging
Secondary Power Park Footways Edging	Timber edging
NEAP Play Surface	Loose bark surfacing
Running Track Surface	Blue polymeric rubber crumb surface
Parking Bays	Blue polymeric rubber crumb surface
	Grasscrete



Yorkstone paving flags



In situ grey concrete, polished



Blue polymeric rubber crumb surface



Loose bark surfacing



Conservation block, buff tones



Timber edging



Buff tone rectangular concrete flags



Buff self binding gravel



Composite timber decking



Grasscrete paver



Tegula permeable paving setts



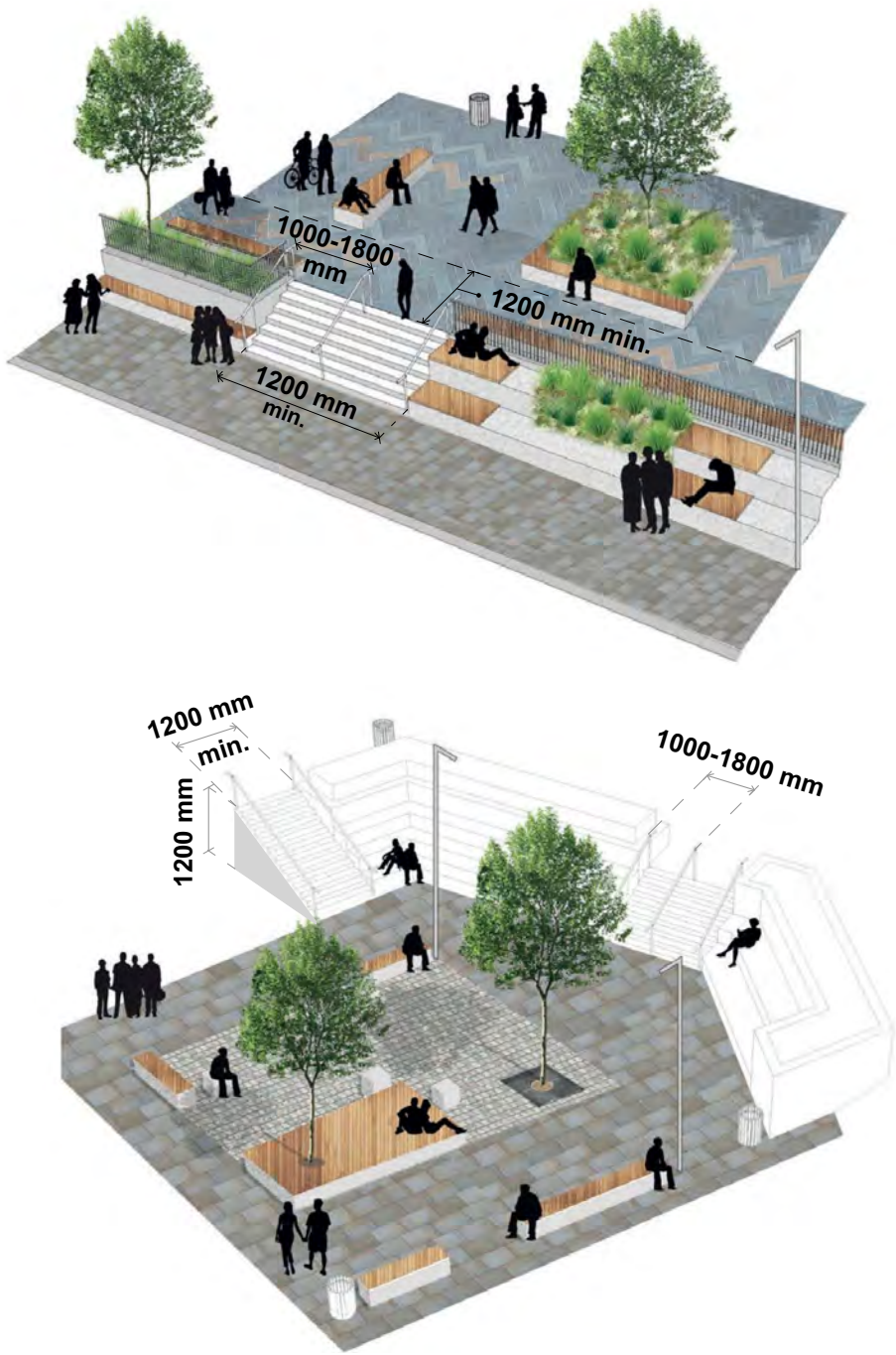
Tumbled stone sett kerb

Part E Detailing The Place

25.0 Site Level - Podium Level Mediators

Stepped Access

The site has various levels of the podium. Stepped access should be provided in accordance with Part M, Building Regulations. External stepped access has been divided into two types. Primary stepped access forming significant entrance points to the market and retail spaces and secondary stepped access connecting the immediate context and its various levels at regular intervals.



Illustrative vignettes showing primary and secondary stepped access



Primary stepped access must include the following features:

- Steps are to be uniform with a rise between 150mm and 170mm;
- The rise of a flight between landing contains no more than 12 risers for a going less than 350mm and no more that 18 risers for a going of 350mm or greater;
- Materials for thread must not present a slip hazard, especially when the step is wet;
- Wider steps providing a seating opportunity, larger ramps providing opportunity for social interaction and meetings spaces;
- Handrails for support need to be placed at adequate intervals;
- Level landing to be provided at the top and bottom of each flight and clear of any form of entrance door swings; and
- Length of the stair can be broken with hardscape and soft landscape elements where possible.

Unobstructed landing length	minimum 1200mm
Width between handrail location	minimum 1m and maximum 1.8m
Landscape Character	High quality surface finishes integrated with soft landscape of trees and ornamental where possible.

Secondary stepped access must include the following features:

- Steps are to be uniform with a rise between 150mm and 170mm;
- The rise of a flight between landing contains no more than 12 risers for a going less than 350mm and no more that 18 risers for a going of 350mm or greater;
- Materials for thread must not present a slip hazard, especially when the step is wet;
- Continuous handrail to be provided on both sides of flight and landing;
- All stepped access to be well lit and easily identifiable.

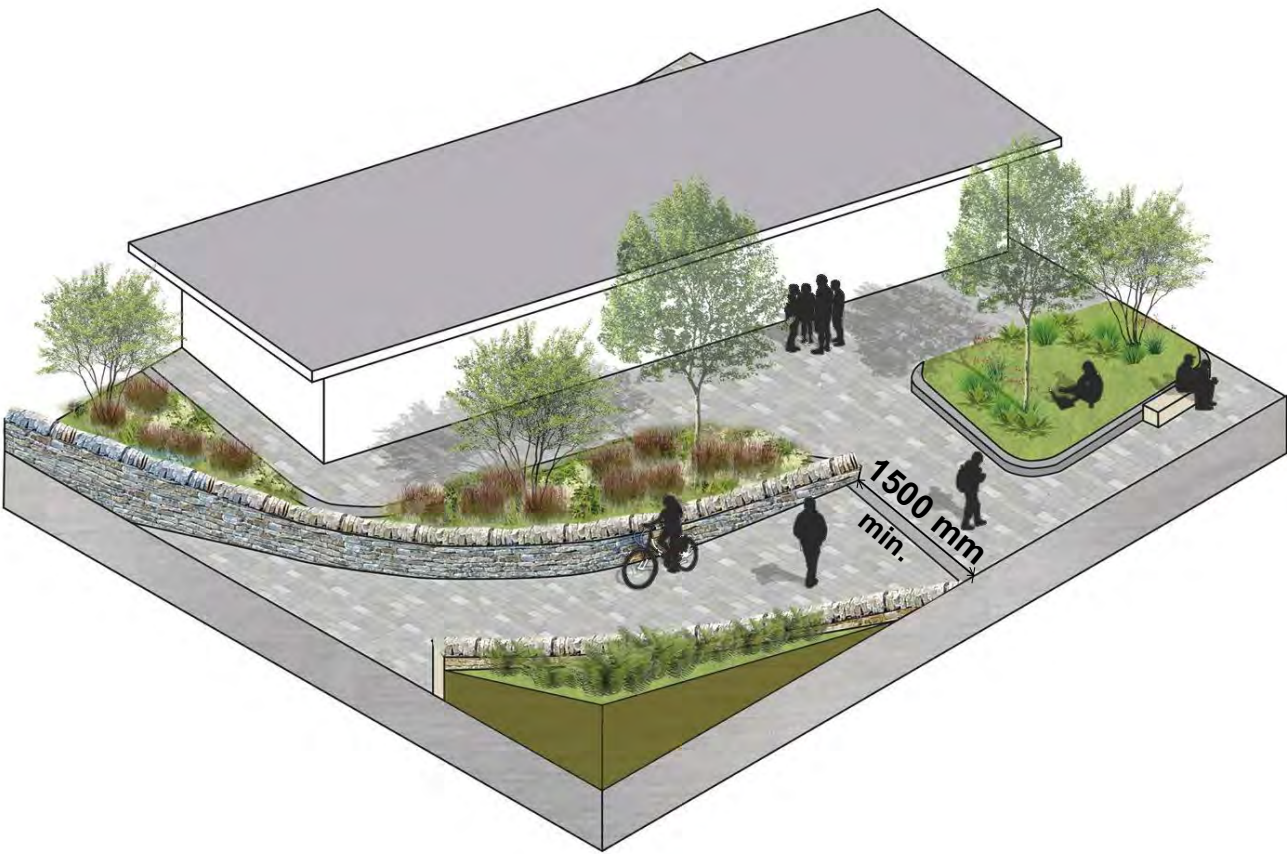
Unobstructed landing length	minimum 1200mm
Staircase width	minimum 1200mm
Staircase rise	150mm to 170mm

Part E Detailing The Place

25.1 Site Level - Podium Level Mediators

Ramped Access

In situations across the site where the gradient of approach is over its whole length or in part is steeper than 1:20 this part of the approach should be designed as a ramp. The gradient of the ramp should be as shallow as to accommodate wheelchair access, people pushing prams, pushchairs and bicycles. Ramped access should be integrated with soft landscape to create a seamless transition of levels. Ramps should be designed in accordance with Part M, Building Regulations.



Illustrative vignette of ramp access



Primary softscape ramped access must include the following features:

- Materials for tread must not present a slip hazard, especially when the step is wet;
- Ramps in the Power Park and Riverside gardens must use be designed for inclusive accessibility. It must be well-lit and laid out to maximise passive surveillance in accordance with BS 8300;
- Soft landscape in the Power Park and Riverside Gardens must include mounded seating terraces to help mitigate the level changes;
- Wheelchair users will need adequate space to stop on landings, to open and pass through doors without having to reverse into circulation routes or face rolling back on slopes; and
- All landings are subject to a maximum gradient of 1:60 along their length and maximum cross-fall gradient of 1:40.

Unobstructed landing length	minimum 1200mm
Width between handrail location	minimum 1 m and maximum 1.8 m
Landscape Character	Creating stepped terrace level changes in the parks providing space for seating.

Secondary hardscape ramped access must include the following features:

- All ramps to be a maximum gradient of 1:20 to 1:15;
- Top and bottom landing to be provided at every flight;
- An intermediate landing to be provided between individual flights and at any change of direction;
- Every landing is to be at level, subject to a maximum gradient of 1:60 along their length and a minimum of 1200mm clear of any door or gate swing to be provided;
- An alternative means of access for wheelchair users to be provided when the total rise is greater than 2m;
- The ramp surface needs to be slip resistant, especially considering times when wet; and
- Handrail on either sides to be provided.

Ramp width	1500mm minimum
Gradient	1:20 maximum for 10m going of flight
Landscape Character	High quality reclaimed hard material finishes such as York or stone to be used for ramps in public realm areas.

Part E Detailing The Place

26.0 Swanscombe Peninsula SSSI Mitigation

A Design Code Addendum has been prepared specifically in relation to ecological measures, focussing on mitigation to be included within the detailed design of the Proposed Development in order to manage impacts upon the SSSI. Careful consideration of the neighbouring Swanscombe Peninsula SSSI and ‘mitigation by design’ principles were incorporated into the evolving scheme.

Requirements:

To be read in accordance with ES Volume 1, Chapter 14: Ecology and Biodiversity:

- Signposting displaying the sensitivity of Swanscombe Peninsula SSSI to human disturbance, for example highlighting the potential detrimental impacts of dogs off leads upon nesting birds during the relevant ecological season;
- Ensure access directly from the site into the SSSI is not possible, especially for dog walking;
- The use of thick and tall-shrub, such as hawthorn and blackthorn, to make the planting difficult to penetrate and reduce access to the fence. It is recommended that this is planted very early in the construction process to enable the vegetation to fully establish prior to occupation;
- A mitigation buffer zone should be the greatest width available to plant without impacting the scheme;
- Proposed cat proof fencing across the boundary of the SSSI. Recommended specification should be a wire or chain link fence with mesh size no more than 2.5cm, of at least 1.8m height and with a 0.6m overhang into the site; and
- The provision of an information centre/cafe within the Power Park, next to the play areas, to encourage walks around the site as opposed to within the SSSI, and to provide information regarding notable species and habitats including relevant protection measures within the local area and the SSSI in particular.

Refer to design code pages 102, 105, 108-112 for further reference to the SSSI and site-wide ecological enhancements.



- Proposed native species planting buffer zone
- Proposed thick, tall-shrub planting such as hawthorn and blackthorn (recommended to be planted early in the construction process)
- Proposed cat-proof barrier, to include wet ditch and fencing, wire or chain-link fence
- Proposed information board detailing the important aspects of the adjacent SSSI
- Proposed warning sign highlighting ‘no entry’ for dog walkers into the SSSI
- Proposed provision of SSSI information centre at cafe hub within the Power Park



Hawthorn and blackthorn hedging to provide further boundary prevention adjacent to the SSSI



Provision of cat-proof fencing at the boundary adjacent to the SSSI



Signposting displaying the sensitivity the SSSI



Proposed native species buffer zone

Part E Detailing The Place

26.1 Swanscombe Peninsula SSSI Mitigation

This Design Code Addendum has been prepared specifically in relation to Natural England’s commentary on the application, in relation to technical mitigation measures to be applied when assessing the detailed design of the Proposed Development in order to manage impacts upon the SSSI. Careful consideration of the neighbouring Swanscombe Peninsula SSSI and ‘mitigation by design’ principles have been incorporated into the evolving scheme at Outline and are required to be developed further through Reserved Matters as follows:

Requirements:

- Confirmation that future design solutions address monitoring and maintenance of the following.
- The scheme should make provision for continuous wet fences around the south-western/southern side of the development. These are wet ditches or swales of sufficient proportions to create a barrier for cats.
- The scheme should make provision for continued fencing and shrub planting around the south-western/southern side of the development (where appropriate) given consideration to the SSSI boundary.
- Specific technical-design information submitted as part of the Reserved Matters must specify the spacing between the shrub planting areas and fencing to ensure proposals offer an appropriate design to deter Cats from easily travelling into the adjacent SSSI. Engagement with both the LPA and Natural England must be sought to agree such proposals.
- Detailed information must be presented through Reserved Matters on how the wet fences including water levels, fencing and dense shrub planting will be monitored in perpetuity to ensure: (a) their integrity is maintained and (b) that they effectively mitigate impacts of cat-predation on the SSSI breeding bird assemblage. This should include details of the body responsible for ensuring the monitoring is undertaken, the frequency of monitoring, reporting requirements, and the funding to secure the monitoring in perpetuity.

Refer to design code pages 102, 105, 108-112, and 119 for further reference to the SSSI and site-wide ecological enhancements.



Hawthorn and blackthorn hedging to provide further boundary prevention adjacent to the SSSI



Provision of cat-proof fencing at the boundary adjacent to the SSSI



Wet ditch swale designed as barrier in conjunction with planting to prevent cats from migrating across site boundary into SSSI.



**Northfleet
Harbourside**

Appendix

Northfleet Harbourside

A Daylight & Sunlight - Design Guide