1.0 INTRODUCTION
INTRODUCTION

The London Borough of Havering has engaged Notting Hill Housing and Countryside Properties UK Limited as their partners to carry out the redevelopment of the sites on Land adjacent to Hilldene Avenue, Bridgwater Road, Darlington Gardens and Northallerton Way, Harold Hill, RM3 (Hilldene North).

The redevelopment of the sites will have a mix of houses and flats for affordable rent, shared ownership and private sale. Notting Hill Housing and Countryside Properties UK Limited are working with the Council to put Harold Hill at the centre of the Borough-wide ‘Living Ambitions’ project.

SITE DESCRIPTION

Hilldene North

Site is approx 1.53 hectares/ 3.78 acres.

- Site has been cleared of all previous Council owned housing although a library, petrol station and former gym remain.
- 100 residential dwellings proposed
- 58 affordable dwellings and 42 private dwellings
- Minimum 130 car parking spaces
- Affordable rent/ intermediate residential tenure comprises: 12 x one bed flats, 10 x two bed flats, 16 x two bed houses, 18 x three bed houses and 2 x four bed houses.
- Private residential tenure comprises: 12 x one bed flats, 10 x two bed flats, 12 x two bed houses and 8 x three bed houses.
1.0 Introduction
IMMEDIATE CONTEXT

Surrounding Area

The Hilldene North Site is situated to the north of Hilldene Avenue with access to the site being immediately opposite the entrance to the Hilldene shopping centre.

- Schools: St Ursula Junior School, Brookside Junior School, Hilldene Primary School and Havering College are all within approximately 1 mile radius of both sites.
- GP Surgeries: The Health Centre, Gooshays Drive, Harold Hill, Romford is located within 1 mile radius of both sites.
- Local Amenities: Local shops and restaurants are located within Hilldene shopping centre.
- Local Parkland: Dagnam Park is located to the east of Hilldene Avenue and has a formal children’s play area.

Bus stops are located on Hilldene Avenue and Chippenham Road.

Harold Wood Railway Station is approximately five minutes away from Hilldene Avenue by bus.
2.0 PLANNING APPLICATION & APPROACH
CONSULTATION

The public exhibition was held on site within the former gym building. Holding the exhibition on site was important to ensure it was accessible to the surrounding community. The exhibition was held between 10am-5pm on Wednesday 30th May 2012 and between 1pm-8pm on Thursday 31st May 2012 to allow people to attend after office working hours. The applicant, architects, planning consultants and an officer from Havering were present at the exhibition to answer any questions raised by the visitors.

Approximately 60 people attended the exhibition (40 visitors signed the register).

The overall consensus from surrounding residents was that the redevelopment was long overdue and a welcomed improvement to the area. Comments on the feedback cards included:

"Long awaited face lift"
"Support the development"
"Drawings look really good in terms of design"
"Good ideas and good display of what it will look like"
"Car parking is an issue"
"Security in Darlington Path needs to be addressed"

The predominant comment received during the exhibition was on the poor existing car parking provision in the area. Many visitors stressed the need for additional car parking in the area and queried how the development would impact on the existing parking situation. The redevelopment meets Havering’s parking standards to ensure the scheme does not impose any additional pressure on the parking situation.
3.0 PROPOSED DEVELOPMENT
3.0 PROPOSED DEVELOPMENT

DESIGN PHILOSOPHY

The proposed strategy for Hilldene North builds upon our core objective of creating great places for people and communities. Well thought out layouts make attractive places for living and help to forge stronger community ties. We have, through good urban design and landscaping, the opportunity to develop a strong architectural response for the sites.

Our proposals show how we will meet and exceed Havering’s aspirations for the site by:
- Transforming the image of Hilldene North
- Creating attractive safe communal and public spaces
- Providing high quality well designed homes
- Providing a range of housing sizes and tenures
- Creating a sustainable community
- Making attractive and accessible routes to front doors
- Creating flexible spacious homes
- Ensuring that everyone has their own private space
- Constructing homes which are environmentally sustainable: Low heating, power and water costs, good noise reduction and a reduced impact on the environment
- Making safe overlooked spaces and routes to the surrounding neighbourhood
- Providing high standards of safety and security.

DESIGN STANDARDS

- Lifetime Homes
- Code for Sustainable Homes
- Secure by Design
- Notting Hill Housing Design Guide
- Manual for Streets

DESIGN APPROACH

The design process for the development of both sites has been very detailed and extensive. The Design & Access Statement will assess the general design principles and then look at the more detailed design and architecture as follows:
- Urban Design
- Scaling and Massing
- Building Heights
- Appearance and Architecture
- Public Realm
- Highways, Access and Circulation
- Sustainability
- Waste
- Secure by Design
- Health and Wellbeing
- Building for Life
URBAN DESIGN DIAGRAM

Improving the public realm objectives:

- To reconnect the site into the surrounding streets, vehicular and pedestrian links
- Encourage positive interfacing with the street, clear definition between public realm and residential space
- Provide an attractive and safe environment with natural surveillance of public realm
- Encourage cross-site permeability to promote integration with the surrounding urban network and connections

Legend:

- Landscape buffer/tree lined strip
- Homezone/public realm landscaping
- Strong perimeter
- Focal point
- Private amenity
MOVEMENT DIAGRAM

The layout has also been practically designed taking into consideration parking allocation, and refuse storage and collection for each unit.
At key points in the terraces, three storey feature houses have been positioned to create legible markers to different areas and to enclose vistas. The change in dwelling type on the corners creates some interest in the street scene through the higher building elements and detailed elevational treatments.
Our proposal for the North Site is to respond to the strong link with Farnham Road and the shopping precinct, enhance existing connections and create a place with distinctive character. Through the centre of the site to the north of Bridgewater Road we propose to create a Homezone area. The axis of the site is to be used to form a boulevard extending along the entirety of the site from north to south and enhancing the vista created by the natural slope of the site. The route is defined with strong perimeter edges consisting of a mixture of three storey flats positioned on the corner of Bridgewater Road and terraced housing towards the northern boundary of the site.
APPEARANCE AND ARCHITECTURE

The proposed house and apartment types relate sympathetically to their context with a modern twist. Repetitive elements and regular articulation punctuated with either 3 storey feature houses or apartments will create a unique element and add character to the scheme.

The design ensures that each unit is distinctively separated from its neighbour through the use of rainwater goods and entrance porches.

All upper floor flats have generous balconies to supplement the ground floor amenity space. At ground level flats are provided with front patios and secure gardens. External spaces are designed to maximise public uses, hard paved areas prioritise pedestrian use and allow informal children’s play in line with Homezone principles.
APPEARANCE AND ARCHITECTURE

All houses have been designed to have private rear gardens, defensible spaces have been created at the front to provide setting and a clear boundary between public and private spaces.
ELEVATIONS

The elevations have been developed to ensure a high quality design is achieved through a balance of materials, colour and size of building elements. The elevations consist of 4 principal materials:

- Light brick for the houses or similar
- Dark grey brick forming entrance porches and bins store
- Colour spandrel panels to link windows
- Slate or similar for roofs

The use of a light brick for the houses forms a background for the street elevations and enables the linked windows to be framed and creates visual interest. The dark grey brick porch adds further detail and interest to the elevation composition.

The corner elements on the apartment blocks represent the signature design features for the development and will create focal points and improve legibility.

Entrances to individual houses and communal staircases are clearly visible are distinguished by projecting porches and canopies.

The fronts of all houses and apartments will be defined by low level planting.

A variety of boundary treatments are used in order to separate private space and create defensible space in front of buildings. Close boarded timber fences are proposed in rear gardens where as brick walls will be constructed to the side of houses when visible from the street.

Example of 2/3 and 3/4 storey Transition
The overall design approach aims to offer a modern interpretation of the local architectural vernacular.

**MATERIALS FOR HOUSES**

Key building elements and materials have been considered to be consistent and compliment current built phases:

- **Brick**
  - Good quality light colour brick or similar. The light brick will run through out the development on apartments and houses acting as a background.

- **Horizontal Cladding**
  - Horizontal weatherboarding such as Marley Eternit Cedral or Marley Eternet Natura

- **Entrance Porch**
  - Good quality dark grey brick with covered porch and integrated bin store.

- **Roofs**
  - Roofing is man-made dark grey slate such as Eternit Garsdale, Eternit Rivendale.

- **Shadow gap detail**

- **Glazed window panel**
  - Linked window with colour feature panel insert.
The overall design approach aims to offer a modern interpretation of the local architectural vernacular.

**MATERIALS FOR APARTMENTS**

Key building elements and materials have been considered to be consistent and complement current built phases:

- **1 Brick**
  Good quality light colour brick or similar. The light brick will run through out the development on apartments and houses acting as a background.

- **2 Horizontal Cladding**
  Horizontal weatherboarding such as Marley Eternit Cedral or Marley Eternit Natura

- **3 Entrance Porch**
  Good quality dark grey brick with covered porch and integrated bin store

- **4 Roofs**
  Roofing is man-made dark grey slate such as Eternit Garsdale, Eternit Rivendale.

- **5 Shadow gap detail**
  Linked window with colour feature panel insert

- **6 Glazed window panel**
  Linked window with colour feature panel insert
To the east of the Site we have upgraded Darlington Path to provide a new Homezone route lined with terraced houses as this is an area where crime and anti-social behaviour is causing a problem at present. These houses, as well as the corner feature houses on Bridgwater Road and Darlington Gardens, will ensure the public spaces are overlooked and feel safe. This new Homezone will also improve access for existing residents enabling them to have the option of creating their own parking spaces in the front of their properties.
LIFETIME HOMES

The proposed scheme will also be fully adaptable to meet Lifetime Homes Standards. Careful positioning of houses together with generous sizes of windows/patio doors and improved floor to ceiling heights will maximise the amount of the daylight and sunlight to all dwellings resulting in well lit and spacious interiors.

2 BEDROOM HOUSE - 4 PERSON

Size: 84.96 sqm - 2 storey Storage: 1.98 sqm

Ground Floor

- **Kitchen**
  - Area: 8.98m²
  - Dimensions: 2723 x 3298

- **Living room**
  - Area: 19.01m²
  - Dimensions: 4875 x 3900

- **WC**
  - Area: 3.15m²
  - Dimensions: 2100 x 1500

- **Storage**
  - Area: 1.34m²

First Floor

- **Bedroom 1**
  - Area: 13.81m²
  - Dimensions: 3743 x 3298

- **Bedroom 2**
  - Area: 14.62m²
  - Dimensions: 4875 x 3000

- **WC**
  - Area: 5.04m²
  - Dimensions: 2100 x 2400

- **Storage**
  - Area: 0.64m²

Typical Unit Types
3 BEDROOM HOUSE - 5 PERSON

Size: 95.34 sqm - 2 storey  Storage: 2.27 sqm

Ground Floor
Living/Dining/Kitchen
Area: 34.52m²  Dimensions: 5213 x 7188

WC
Area: 3.96m²  Dimensions: 2200 x 1800

Storage
Area: 0.42m² & 1.85m²

First Floor
Bedroom 1
Area: 12.04m²  Dimensions: 2800 x 4300

Bedroom 2
Area: 14.02m²  Dimensions: 2800 x 5008

Bedroom 3
Area: 8.02m²  Dimensions: 2293 x 3500

Bathroom
Area: 5.45m²  Dimensions: 2273 x 2400
2 BED FLAT - 4 PERSON

Size: 74.02 sqm - 1 storey

Ground Floor

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<thead>
<tr>
<th>Area Description</th>
<th>Area (m²)</th>
<th>Dimensions</th>
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<tbody>
<tr>
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<tr>
<td>Bedroom 1</td>
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<td>Bedroom 2</td>
<td>13.99</td>
<td>4475 x 3775</td>
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</table>
4.0 DESIGN CONSIDERATIONS
4.0 DESIGN CONSIDERATIONS

PEDESTRIAN & CYCLE ACCESS
Pedestrian and cycle routes through the site have been integral to the design process. Cycle parking has been provided in accordance with the local authority’s planning guidance and storage is provided for both houses and flats in the form of lockable, secure stores and sheds. Apartments will have one cycle space per unit.

VEHICLE PARKING
Parking provision for Hilldene North has been a key determining factor in the development of the concept proposals, notably ensuring the level of parking provision meets local authority standards whilst mitigating any detrimental visual or safety impacts. Parking therefore is incorporated within rear parking courts (apartments) and along the street boundaries (houses). This has been carefully designed making efficient use of space yet incorporating appropriate landscaping and lighting arranged to be overlooked by residents to deter antisocial activity and promote a sense of ownership.

• 130 Parking spaces provided for the Hilldene North Site

PARKING RATIO
1B & 2B Apartments - 1 space
2B House - 1 space
3B House - 2 space
4B House - 2 space
WASTE

The storage and collection of household waste has been practically considered in working up the layout, in particular the location of bin storage and close proximity to the point of collection and refuse lorry route.

For houses we are providing a storage space within the entrance porch which can contain a wheele bin with shelf above for recycling boxes.

Apartment residents are most likely to dispose of household rubbish when leaving the building. Therefore routes out of the apartment buildings have been an important consideration when designing the location of central bin stores and their means of access for both residents and refuse collection operatives.

At the operational stage the following waste management measures will be undertaken, the overall strategy is set out in more detail within the waste management strategy.

- Ground material will be re-used on site where possible.
- Local materials will be specified where practical to minimise transport movements.
- The development will comply with local waste management strategies.
SUSTAINABILITY

The proposed development will achieve the Code for Sustainable Homes (CfSH) Level 4. The sustainability scoring in accordance with CfSH will be achieved through upgrading the building fabric e.g. the use of sustainably sourced materials and the inclusion of high performance building insulation.

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<th>Passive measures</th>
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<th>Proposed Scheme</th>
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<td><strong>U-values</strong></td>
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<td>External Walls</td>
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<td>Party Walls</td>
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<td>Doors</td>
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<td>Air tightness</td>
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<tr>
<td>Low-energy lighting</td>
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<td>100%</td>
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Building orientations have been carefully considered to provide good solar penetration and to maximize natural daylight either by north/south, or east/west facing elevations.

To reduce water use to 100L/person/day we will use water efficient measures such as the installation of low-flow and aerating taps and showers. Additional water conservation measures are likely to include:

- Utilising dual flush toilets in all units
- Flow restrictors on showers
- Aerated taps to be fitted to all wash basins

The development has demonstrated an emissions reduction of 16% through the use of on site renewable photovoltaic energy generation.

HEALTH & WELLBEING

The proposed layout gives high importance to the integration of public realm and prioritising pedestrian and cycle movement through the site. The internal layout combined with the external links to pedestrian and cycle paths, and bus routes and the wider area will therefore encourage residents to use healthy modes of transport.
SECURED BY DESIGN

The requirement to create a safe community and sense of place and ownership has been a key element in designing the North Site. The Department for Communities and Local Government (CLG) Publication ‘Safer Places: The Planning System and Crime Prevention’ (March 2004) stipulates that all planning applications should demonstrate how crime prevention measures have been considered.

Integrated Approach

In preparing the plan layout priority has been given to creating well lit public open spaces which can accommodate multiple uses, e.g. movement, recreation and parking. The lighting scheme will be designed to BS 5489 ensuring that good light levels are provided to all external highways, footpaths, communal and commercial seating areas, parking bays, doorways, storage rooms and internal circulation points. Consideration of crime prevention at the outset will avoid the need for installing (physical) measures at a later date.

Natural Surveillance

The proposed public and semi-private areas are readily visible from nearby buildings. Clearly defined private defensible space has been provided to all ground floor apartments through the use of planting and hedges. All glazing to ground floor units and common ground floor glazed areas will have 6.4mm laminated glass installed. Communal doors serving residential accommodation will comply with enhanced security specification PAS024. Dwellings have been positioned to maximize potential for natural surveillance. Architectural features such as contemporary “oriel” and large linked bay windows on corner elevations have been introduced to provide additional surveillance and prevent inappropriate loitering. Parking has been provided to ensure it is close to, or overlooked, from its owner. Hidden spaces in streets and Homezone areas have been avoided.

Environmental Quality & Sense of Ownership

The integration of central green space has been given equal importance in designing the built form to ensure high levels of accessibility and permeability through the developable area. The movement diagram is based around the block structure with “primary routes” and shared spaces therefore maximising the use of active frontages. The use of secluded alleyways has been removed and designed out.

Access & Footpaths

Secluded footpaths have been designed out of the layout. The block layout has pedestrian routes and roads to run parallel in front of buildings to maximise natural surveillance. Footpath widths and verges, combined with the exclusion of sharp corners eliminate potential points of attack and fear of attack. Where planting is proposed next to a footpath it will begin at the outer edge of the verge, starting with low growing plants with taller shrubs and trees to the rear. Plant species have been selected in order not to impede natural surveillance and avoid a high maintenance programme.

Open Space & Management

Public open spaces will be surrounded by apartments and houses with principal frontages therefore maximising natural surveillance.

Utility meter positioning and mail delivery will be designed were feasible to omit the need for tradesman to gain access to individual apartments.

We have held two meetings with Havering’s Secure By Design officer over the last 24 months where our proposals have been presented and well received. Minutes of the last meeting are enclosed as an appendix 1.
The demanding standards set out by the London Borough of Havering in its brief, Design Considerations for Disabled Homes in New-Build Housing Developments, go beyond Lifetime Homes and Habinteg standards familiar to the affordable housing sector. These standards have been fully incorporated into the design of the flat and house types designated as wheelchair units. Intelligent use of space and careful layout ensure units offer maximum flexibility for occupants, on first occupation and subsequently, with varying of changing needs. As part of the design development and consultation process we have established a dialogue with the Council’s Housing and Occupational Therapy teams who stipulated the type and mix of units required. Through this collaborative approach we have devised our final proposal for ten wheelchair units within the East site of the development which will continue to be refined throughout the detailed design phase of the project, ultimately with a view to tailoring internal layouts to the needs of individual occupiers.

Detailed consideration that are reflected in the layouts are:

- Wheelchair units are only located at ground floor in apartment blocks.
- Wheelchair car parking space has been provided to all wheelchair units measuring 3600mm x 6000mm; these have been located as close as possible to the entrances of the wheelchair units.
- The communal entrance lobbies within apartment blocks shall be sufficiently wide to allow a 1.8m turning circle for wheelchair users in at least one location.
- The minimum size of shower rooms within wheelchair units shall be 2700mm x 2100mm and shall include a level access shower.
- The living room within wheelchair units has been designed to allow for a turning circle of 1.8m diameter.
- Double bedrooms for use by a wheelchair user have been designed to accommodate a hospital bed measuring 2260mm x 1050mm and a standard single bed.
- Single bedrooms for use by a wheelchair user have been designed to accommodate a hospital bed measuring 2260mm x 1050mm.
- All external doors to be used by wheelchair users shall incorporate level access thresholds.
01. Does the development provide (or is it close to) community facilities, such as a school, parks, play areas, shops, pubs or cafes?  
Hildene East site is situated immediately to the south of the Hildene Avenue and east of the Hildene shopping area.  
Hildene North Site is situated to the North of the Hildene Avenue with access to the site being immediately opposite to the entrance to the Hildene shopping centre.  
- Schools: St Ursula Junior School, Brookside Junior School, Hildene Primary School, Havering College are all within approximately 1-mile radius of both sites.  
- GP Surgeries: The Health Centre, Gooshays Drive, Harold Hill, Romford is located within 1-mile radius of both sites.  
- Local Amenities: Local shops and restaurants are located within Hildene shopping centre  
- Local Parkland: Dagnam Park is located to the east of Hildene Avenue and has a formal children’s play area.

02. Is there an accommodation mix that reflects the needs and aspirations of the local community?  
The accommodation mix proposed meets almost precisely with the mix profile recommended by the Council, based on robust housing needs information.

03. Is there a tenure mix that reflects the needs of the local community?  
The tenure mix proposed meets almost precisely with the split recommended by the Council. There is a predominance of affordable housing for rent which is the principal requirement in terms of local housing need as many households exist on low incomes and are unable to access housing on the open market. 
The Intermediate and Private Sale options also offered will enable those households that are capable of accessing home ownership to achieve this in an affordable way.

04. Does the development have easy access to public transport?  
Provisional Score 0.5  
Bus stops are located on Hildene Avenue and Chippenham Road. 
Harold Wood Railway Station is approximately five minutes away from Hildene Avenue by bus.

05. Does the development have any features that reduce its environmental impact?  
Provisional Score 1  
In order to achieve Code for Sustainable Homes Level 4, high energy performance materials and U Values which exceed the minimum value as set out in Part L of the Building Regulations have been selected. This will provide good passive performance for the building fabric and therefore reduce heating loads and associated CO2 emissions. Photovoltaic panels are be used to provide renewable energy.  
Building orientations have been carefully considered to provide good solar penetration and to maximize natural daylight either by north / south, or east/ west facing elevations.

06. Is the design specific to the scheme?  
Provisional Score 1  
All units and buildings have been individually designed to respond to site constraints. The proposed house and flat types relate sympathetically to their context with a modern twist. Crisp detailing together with the combination of feature brick panels for porches create a unique element and add character to the scheme.

07. Does the scheme exploit existing buildings, landscape or topography?  
Provisional Score 1  
North Site: Through the centre of the site to the north of Bridgwater Road we propose to create a homezone area which serves as an extension of the existing shopping precinct axis.  
New trees at the North of the site will serve to frame the views enhancing the vista created by the natural slope of the site.  
East Site: The existing route of Chippenham Gardens is to be extended through to East Dene Drive. We are proposing that this route is a Homezone area to integrate pedestrians, cyclists and vehicles movements.  
The route is defined with strong perimeter edges formed with clusters of mixed terraced housing which have been orientated to maximize natural surveillance.

08. Does the scheme feel like a place with distinctive character?  
Provisional Score 1  
The scheme proposals have been specifically designed in response to each site and surrounding urban grain.  
Careful consideration has been given to the placement and articulation of blocks within the site and consistent architectural treatment across various buildings.  
The scheme integrates into the wider neighbourhood by enhancing and extending existing links.  
Existing vistas through the sites are to be enhanced through landscaping and planting, where possible mature trees are to be retained to create focal points.

09. Do the buildings and layout make it easy to find your way around?  
Provisional Score 1  
The layout across both sites is simple and follows the existing grain of surrounding streets and buildings, yet is articulated to provide interest and is complimented by hard and soft landscaping design.  
Entrances to individual houses and communal staircases are clearly visible and distinguished by projecting porches and canopies.

10. Are streets defined by a well-structured building layout?  
Across both sites we aim to achieve this by creating new clusters with strong perimeter edges and forming new routes to enhance existing connections and improve permeability.

11. Does the building layout take priority over the streets and car parking, so that the highways do not dominate?  
Provisional Score 1  
The layout prioritises the movement of people first with the shared surface providing a sense of connectivity between all the buildings and establishing clear routes through the development as a natural ‘desire line’.  
The nature of the shared surface and use of differing paving finishes and colours reduce car dominance and assists in traffic calming.

12. Is the car parking well integrated and situated so it supports the street scene?  
Provisional Score 1  
Car parking across both sites has been carefully integrated within the landscaping and Homezone areas.  
Parking bays are not differentiated in a separate colour or material to reduce visual distinction of bays from the shared surface.  
Private communal car parking for flats has been located in rear parking courts to ensure there is minimal impact on the streets.  
Parking for individual houses has been provided either immediately in front of properties or close by within sight of owners.
13. Are the streets pedestrian, cycle and vehicle friendly?

**Provisional Score 1**

The proposals for both sites create Homezone areas. Within these areas the design of hard landscaping and use of various paving materials throughout assist in traffic calming without the use of physical features and improves the safety of pedestrians and cyclists.

14. Does the scheme integrate with existing streets, paths and surrounding development?

**Provisional Score 1**

**North Site:** Our proposal for the North Site is to respond to the strong link with Farnham Road and the shopping precinct, enhance existing connections and to create a place with distinctive character.

To the east of the Site we propose to upgrade Darlington Path as this is potentially an area where crime and anti-social behaviour can flourish at present. We propose to create a new Homezone route lined with a cluster of terraced houses.

**East Site:** Our proposal for the East Site is to both respond to the existing urban grain surrounding the site and improve the character of the locality. We aim to achieve this by creating new clusters with strong perimeter edges and forming new routes to enhance existing connections and improve permeability.

We propose to enhance the existing link through site to the arcade by the use of landscaped buffer zones and carefully positioned trees to define edges and encourage wildlife habitats.

15. Are public spaces and pedestrian routes overlooked and do they feel safe?

**Provisional Score 1**

Dwellings have been positioned to maximize potential for natural surveillance. Architectural features such as contemporary “oriel” have been introduced to gable elevations to provide additional surveillance and prevent inappropriate loitering. Hidden spaces in streets and Homezone areas have been avoided.

16. Is public space well designed and does it have suitable management arrangements in place?

**Provisional Score 1**

All houses have been designed to have private rear gardens, defensible spaces have been created at the front to provide setting and a clear boundary between public and private spaces. Covered porches have been designed to include the storage of refuse and recycling bins. The flat clusters have been designed to include refuse and cycle storage within the footprint of the buildings avoiding the impact on the street.

All upper floor flats have generous balconies to supplement the ground floor amenity space.

At ground level flats are provided with front patios and secure gardens.

External spaces are designed to maximise public uses, hard paved areas prioritise pedestrian use and allow informal children’s play in line with Homezone principles.

We will seek maximum adoption of areas beyond the curtilage of dwellings or blocks of flats.

17. Do the buildings exhibit architectural quality?

**Provisional Score 1**

The two and three storey houses are manifested with large windows to deliver maximum benefit of light and spaciousness. Windows are arranged in groups which delivers legibility of ownership to the street scene. Rear gardens benefit from large openings onto the garden to respond to contemporary living and to make maximum use of the garden. The pitched roofs and proposed external brick make visual links to the local architectural vernacular. The proposed house and flat types relate sympathetically to their context with a modern twist. Crisp detailing together with the combination of feature brick panels for porches and plinths create a unique element and add character to the scheme.

18. Do internal spaces and layout allow for adaptation, conversion or extension?

**Provisional Score 1**

In order to achieve Code for Sustainable Homes Level 4, high energy performance materials and U Values which exceed the minimum value as set out in Part L of the Building Regulations have been selected. This will provide good passive performance for the building fabric and therefore reduce heating loads and associated CO2 emissions.

19. Has the scheme made use of advances in construction or technology that enhance its performance, quality and attractiveness?

**Provisional Score 0**

Performance, quality and attractiveness will be enhanced through a range of measures. We will use tried, tested and trusted methods throughout the building process that meet the needs of both residents and the Council by delivering much-needed housing as early as possible.

20. Do buildings or spaces outperform statutory minima, such as building regulations?

**Provisional Score 1**

In order to achieve Code for Sustainable Homes Level 4, high energy performance materials and U Values which exceed the minimum value as set out in Part L of the Building Regulations have been selected. This will provide good passive performance for the building fabric and therefore reduce heating loads and associated CO2 emissions.
SOLAR ANALYSIS

Building orientations have been carefully considered to provide good solar penetration and to maximize natural daylight either by north / south, or east/ west facing elevations.

The studies on the following pages illustrate that all rear gardens to dwellings will receive good levels of direct sunlight during the course of the year.

There are no apparent issues with overshadowing adjacent existing properties.
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<thead>
<tr>
<th>Item No.</th>
<th>NOTES</th>
<th>ACTION</th>
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<tr>
<td>1.01</td>
<td>Site Layout</td>
<td>RW presented the proposals for both Hillendene North Site and Hillendene East Site to JT. Note</td>
</tr>
<tr>
<td>1.02</td>
<td>Home Zone</td>
<td>JT confirmed agreement of DN’s finding as in the previous Secured by Design Pre-planning meeting dated 18th November 2010. JT satisfied with the proposed layouts for both East and North Hillendene sites. Note</td>
</tr>
<tr>
<td>1.03</td>
<td>Permeability</td>
<td>JT accepted the proposal for the ‘home zone’ which will encourage an active street front and natural surveillance. Note</td>
</tr>
<tr>
<td>1.04</td>
<td>Parking Provision</td>
<td>JT has no comment on the parking provision. Note</td>
</tr>
<tr>
<td>1.05</td>
<td>Hillendene East Site</td>
<td>JT was satisfied with new proposed link running North to South of Chippenham Gardens linking the Chippenham Road and East</td>
</tr>
</tbody>
</table>

Dene Drive. However, JT raised concern of potential unwanted traffic might use this route as a short cut. SL pointed out the traffic calming device such as raised table and width limiter will be in place to discourage unwanted vehicles. JT is satisfied with the solution.

| 1.06     | Hillendene North Site | JT was supportive of the proposed improvement to Darrington path. The proposals will widen the existing link allowing for vehicle access and parking. In addition new dwellings will be provided to the West of this route to create an active edge with natural surveillance. With the proposed improvements it is hoped that the existing residents will feel able to remove the 1.8 m close boarded fence and reinstate their active frontage. |

2.0 Cycle store | RW confirmed that Cycle store for flats will be provided within dedicated stores of the building envelope and access will be controlled and lockable. Adequate lighting will be provided. JT expressed his preference of single access point to the cycle store rather than a secondary door served from the communal corridor area within the block which may compromise security. RW stated where the spaces are limited, two tier cycle rack system will be introduced alongside the standard Sheffield stands. JT agrees with the principal, RW to forward the product literature. |

3.0 Communal entrance door | JT stated that Audio entry system (as opposed to Audio/Video) is adequate as the maximum number of flats per block is 9 units. JT stated that if Electric strike plate door lock mechanism is used, extra measure will be needed to prevent tampering of the lock mechanism from the outside. JT would like to see specified a multi point locking system but is open to alternative proposal. RW confirmed the proposed letter box for the flats will be through the wall’ letter boxes with the fire retardation and anti-ligishing attributes as stated in point 24.5-24.6 of the New Homes 2010 Secured by Design document. |

4.0 Defensible Space | JT stated a preferred 1m minimum depth for the defensible space in front of the ground floor windows. This can be low level hedging/raftings etc. to defining public and private space. |
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>Rear parking court yard</td>
</tr>
<tr>
<td></td>
<td>JT confirmed due to the fact the rear parking courts only have one entry/exit and do not provide link to other areas, access control gates can be omitted provided that the lighting in the parking bays and the amenity spaces are adequately lit from sunset to sunrise uniformly is the key. Further detailed Lux plan should be provided for the approval of JT during construction phase.</td>
</tr>
<tr>
<td></td>
<td>RW stated that a rumble strip or change of surface treatment will be implemented to assist in the perception of change from public to private spaces as shown in the site plan.</td>
</tr>
<tr>
<td>6.0</td>
<td>Boundary treatments</td>
</tr>
<tr>
<td></td>
<td>JT stated that all boundaries between public and private space should be minimum of 2 m high. This can be made up by 1.8m wall and 200mm trellis or any other reasonable combination. Boundary fences between two private amenity spaces can be reduce to 1.8m high. Details are provided in Designing Safer Places Supplementary Planning Document February 2010.</td>
</tr>
<tr>
<td></td>
<td>JT stated the boundary fences around the child-play area should be 1.8m high. The fences need to be very transparent to reduce the opportunity for vandalism.</td>
</tr>
<tr>
<td>7.0</td>
<td>Home office</td>
</tr>
<tr>
<td></td>
<td>JT is not concerned with the door/lock specification of the particular room door within the flat. JT stated the external envelope is the real issue. i.e. the front door to the flat and external windows on the ground floor flat should comply with the Secured by Design New Homes Guide 2010.</td>
</tr>
<tr>
<td>8.0</td>
<td>Carports</td>
</tr>
<tr>
<td></td>
<td>JT is satisfied with the carport design as proposed in house type_F, type_Bw and type_Fw. JT stated that visual surveillance of the carport from within the house is the key. Adequate lighting should be provided to light up the carport space.</td>
</tr>
<tr>
<td></td>
<td>JT stated fence between the private garden and the carports need to be 2m high. JT is not concerned with the position of the fences the key issue is the height of the boundary treatment.</td>
</tr>
<tr>
<td></td>
<td>JT stated that for all instances where a garden gate is proposed it must be key lockable from both sides.</td>
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</tbody>
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**Note**

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<tr>
<td>7.0</td>
<td>Safer Places Statement</td>
</tr>
<tr>
<td></td>
<td>PCCO advised that the application is due to be submitted in June 2012. RW confirmed there will be a dedicated section - Designing Safer Places Statement - within the Design &amp; Access Statement.</td>
</tr>
<tr>
<td>10.0</td>
<td>Street Lighting</td>
</tr>
<tr>
<td></td>
<td>RW and SL confirmed the street lighting will comply with section 19 of Secured by Design New Homes Guide 2010. The overall Uniformity of light for an SBD development is expected to achieve a rating between 0.40 to 0.25. JT expressed concern on low level bollard to avoid low level bollard lighting where possible.</td>
</tr>
</tbody>
</table>
**General Notes:**
The scope of the feasibility design work, schedules and all other information is provided for the purpose of demonstrating: capacity, massing, urban design principles and general arrangement only.

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Feasibility studies are subject to further information from the Client regarding any covenants, licences and easements, rights of light, underground services and legal boundaries pertaining to the site and its environs. The design(s) do not reflect detailed studies in respect of daylight or sunlight analysis to the design or adjacent buildings/structures which will be subject to detailed design and verification at later workstages.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Amendment</th>
<th>Date</th>
<th>Initials</th>
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<tbody>
<tr>
<td>A</td>
<td></td>
<td>20-07-2012</td>
<td>IF</td>
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