

## ACHIEVING GOOD URBAN DESIGN - RAINBOW ESTATE

- 1.1 The National Planning Policy Framework sets out what good design should aim to achieve, in a set of six statements that are complementary to policies contained in the Mayor's London Plan, Unitary Development Plan, draft Sites & Policies Plan and Policies Map and By Design guidance, and the principles of the Raynes Park Enhancement Plan.

Principles of good urban design	
Character	A place with its own identity
Continuity and enclosure	A place where public and private spaces are clearly distinguishable
Quality of the public realm	A place with attractive and successful outdoor areas
Ease of movement	A place that is easy to get to and move through
Legibility	A place that has a clear image and is easy to understand
Adaptability	A place that can change easily
Diversity	A place with variety and choice

- 1.2 Urban design is concerned with the arrangement, appearance and function of places. It is both a process and an outcome, creating places in which people live, work, engage with each other and the physical space around them.

- 1.3 Urban design occurs across all parts of the built environment, from the inner city, to our town centres and suburban neighbourhoods, the principles of good urban design are relevant to development, whatever the nature or size. Urban design operates at the macro scale (land use planning, infrastructure) to the micro scale of street furniture, lighting, architectural quality and detailing; all of which inform the success and socio-demographic mix of a place.

- 1.4 Good urban design can influence:

- The economic performance and socio-economic make-up of a locality – whether it be encouraging local business, attracting people to live there, whether the place is affordable and access to facilities and services is equitable.

- The physical scale, appearance and ambience of a place; the balance of uses in the built environment and the interface with the natural environment and their sustainability.
- The social and cultural nature of a place; how people interact with each other, how they move around, how they use a place and create a vibrant sense of public life in a place.

1.5 It is the careful consideration and layering of building types, uses, natural systems, communities and cultures that gives a place its unique characteristics and identity.

1.6 One of the Raynes Park Enhancement Plan's three key objectives is to improve the physical environment, appearance and maintenance of the public realm in Raynes Park. Applying this to the Rainbow site, this will be easier to achieve if the principles of good design and a public realm that is attractive, safe and easy to maintain can be embedded into development proposals from the start.

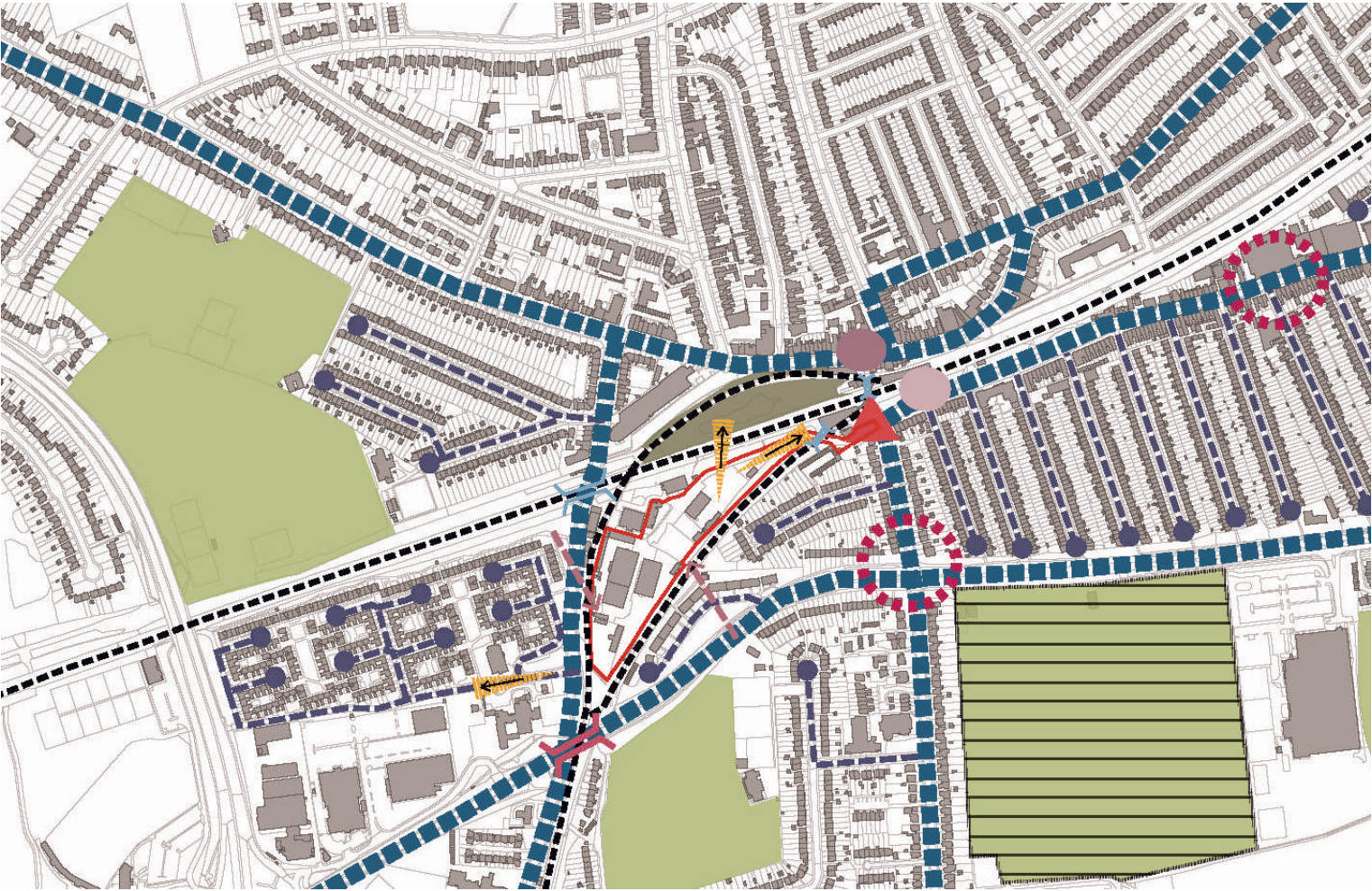
1.7 Feedback from the public consultation on the draft planning brief (July 2012) was that high quality urban design was essential to shape and deliver a successful development on the Rainbow site. To help investigate this issue, two design workshops were held in October 2012 and January 2013 with representatives from the local community, who discussed the background to the site, options for site layout, access, design, uses and wider benefits and constraints.

1.8 The findings from these design workshops, planning policy and good practice on urban design, including the messages from the Raynes Park Enhancement Plan have all been used to reassess the site and provide more detail on the how the principles of good urban design should apply to the Rainbow site. The **design principles** in particular should inform development proposals for the site.

## **2. Raynes Park: the place**

- 2.1 Raynes Park local centre is set within attractive and prosperous residential streets, with West Wimbledon to the north and West Barnes to the south. The centre is divided by the elevated railway lines and embankments with most of the shops and other town centre services premises situated to the north of the railway lines.
- 2.2 The railway line itself divides in Raynes Park, enclosing the site known as Rainbow Industrial area. As most of the streets were laid out after the railway line opened in the mid nineteenth century, the Raynes Park area is characterised by cul de sacs: the Apostles, Firstways, Carter's Estate, Camberley, Abbot, Taunton and Somerset Avenues.
- 2.3 The area analysis illustrates how the area south of the railway line is characterised by relatively quiet, attractive residential streets (e.g. the Apostles, Firstway) bisected and enclosed by major transport routes. North-south West Barnes Lane runs parallel to Grand Drive and east west the railway lines run parallel to Bushey Road.

Figure 1 Raynes Park area analysis



- Area Analysis - Raynes Park
- ▬▬▬ Major movement corridor
  - - - - - Major barrier - Railway Line
  - ⊘ Major Gateway into Rainbow Ind. Est.
  - · - · - Cul de sac layout
  - Major neighbourhood node
  - Minor neighbourhood node
  - Green open space
  - Dense vegetation
  - ▨ Paid access green space
  - ▲ Topography gradient
  - ▬ Site boundary
  - - - - - Glimpsed views Rainbow Ind. Est.
  - ▲ Site access
  - ⌋ Railway bridge
  - ⌋ Motorway bridge

- 2.4 Raynes Park town centre has changed considerably in the past 5 years, largely as a result of the co-ordination of planning, development and investment to implement the Raynes Park Enhancement Plan and the recommendations in the plan's Streetscene and Advertising supplementary reports, produced by Place Design and Planning..
- 2.5 The Enhancement Plan for Raynes Park was produced out of a shared desire from the local community, businesses and the council to better co-ordinate local investment to improve the look and feel of Raynes Park town centre, bringing the centre more in line with the attractive residential streets surrounding it..
- 2.6 Although many of the tasks in the 2008-2011 Enhancement Plan have been completed, the objectives and aims of the plan are still very relevant.
- 2.7 The Raynes Park Enhancement Plan focuses on three key objectives:



- Advertising hoardings, unnecessary street furniture and other clutter were removed,
- Funding from various sources has been co-ordinated to repave streets, provide more convenient and better crossings with higher quality, continuous surfaces and specialist feature lighting in the Cattle Arch.
- New developments have been designed with a high quality public realm integrated into the improved streetscene.

Figure 2 Raynes Park Station, Bellmouth (north side) – 2013

2.8 The plan has helped to co-ordinate investment and development in the area, which has added to the strength, attractiveness and vibrancy of Raynes Park town centre.

- Access and circulation: to improve access and circulation for pedestrians, cyclists, road traffic and public transport users
- Shopping and facilities: to strengthen Raynes Park's retail offer, making it a more attractive destination for local shopping needs
- Public realm and environment: improve the physical environment, appearance and maintenance of the public realm in Raynes Park

2.9 To date, the greatest impact has been to the northern side of Raynes Park station where more of the shops and other town centre services are found. In autumn 2012, Raynes Park was named London's Best Performing High Street in a survey of 500 smaller town centres across Britain.



Figure 3 Raynes Park station entrance and Cattle Arch – south side (2013)

- 2.10 Previously the area around the station was viewed as “nondescript and rundown” and was not seen as representative of the wider area (source: streetscene report supporting Raynes Park Enhancement Plan. This has been addressed at the northern side (with the exception of the railway station itself) but there is still scope for improvement at the southern side, with the Rainbow development being an enabler.
- 2.11 **Design principle** - Rainbow provides opportunity to apply recommendations of the Raynes Park Streetscene report to the southern side of the railway lines at the entrance to the Rainbow site, bringing it closer into line with the improvements to the northern side.
- 2.12 **Design principle:** the drop-off at Raynes Park station is one of the few remaining projects in the Raynes Park Enhancement Plan that has not yet been delivered. The redevelopment at Rainbow provides an opportunity to do this.
- 2.13 The Rainbow site is easy to get to by a variety of travel choices but it has a single entrance and exit as effectively a cul de sac,

like many other streets in the Raynes Park area. While this presents constraints to moving through the site to connect with the surrounding areas of Raynes Park, it also presents opportunities to avoid congestion and disruption.



Figure 4 Grand Drive, entrance to the Rainbow Estate – south side 2013

### 3 Entering the site from Grand Drive / Cattle Arch

3.1 The entrance to the site, between Grand Drive and the railway underpass, will be one of the most crucial parts of the development. It will have several functions:

- It will provide the first impression of the southern side of Raynes Park local centre for people leaving Raynes Park station and exiting the Cattle Arch on the southern side, or coming north along Grand Drive.
- It will be the first sight of Raynes Park local centre to travellers coming from the east (along Approach Road / Kingston Road) or travelling north along Grand Drive
- a safe environment for vehicles to turn while dropping off and picking up passengers at the station
- A safe route for pedestrians coming from the south via Grand Drive to cross the entrance to the site and enter or exist the Cattle Arch
- The entrance / exit to the Rainbow site for vehicles, cyclists and pedestrians



- The “front door” of residents living in the Former Station House and potentially a pedestrian route from new homes behind Firstways to the station

3.2 With such a variety of different functions and the need for safe legible environment to support the range of movements, the site entrance must be attractive, good quality and well managed.

Figure 5: Raynes Park entrance to the Rainbow Estate – south side 2013





Figure 6: diagram of the proposed drop-off point at the site entrance

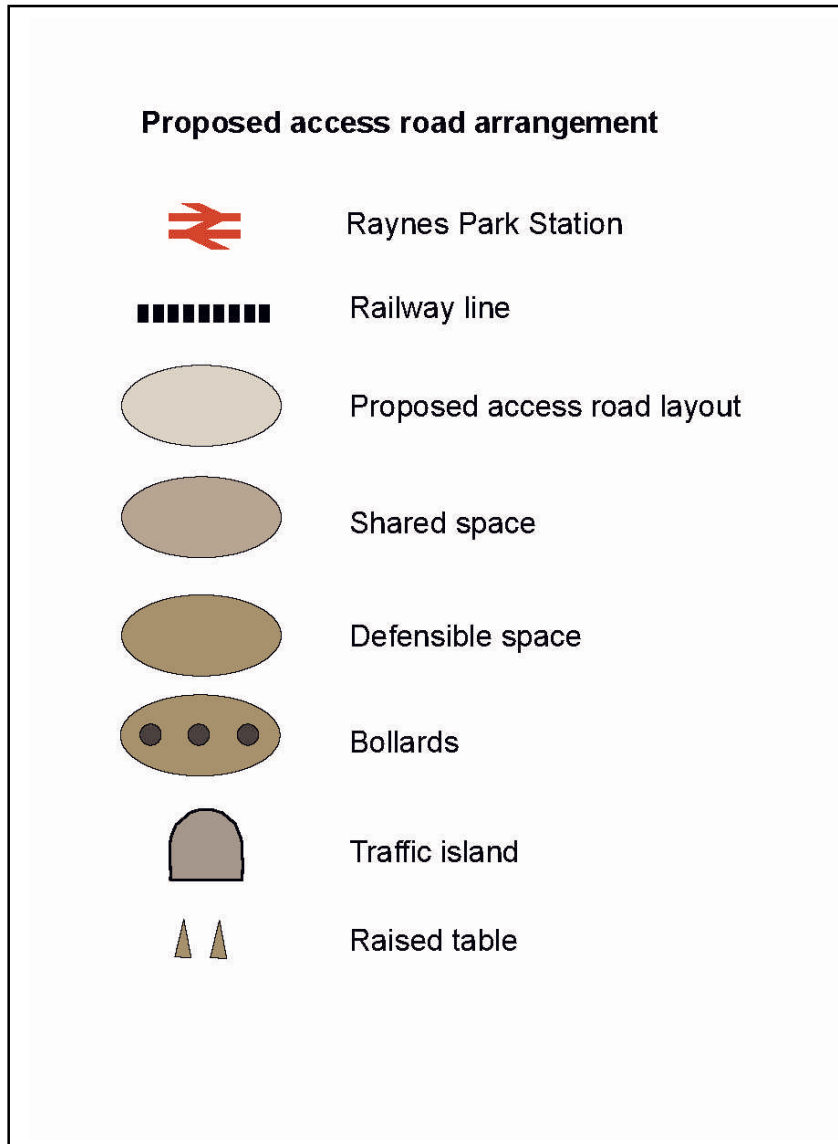


Figure 6: illustration of the proposed drop off point at the site entrance

3.3 Engineering studies have demonstrated that the “Kiss and Ride” can be achieved by:

- widening the entrance to the site off Grand Drive by removing part of the garden of No 9 Grand Drive (this house is owed by Workspace. No changes are proposed to the house itself.)
- creating a paved, shared surface entering the site to signal traffic calming
- removal of the existing electricity substation to the south of the entrance (the substation will be required to be reinstalled inside the Rainbow site)
- Installing a 12metre mini-roundabout, a shared surface and a 2metre dedicated pavement
- Managing the area to maintain the free flow of traffic, preventing long-term parking in this area (apart from the single car parking space adjacent to the eastern side of the Former Station House)

- 3.4 The public realm in this area will continue to be managed and maintained by a variety of landowners and interests including Merton Council's Highways Department, Network Rail, South West Trains and Workspace and, to a lesser extent, those involved in the Former Station House. There are a variety of solutions for enforcing traffic movement within this space including via a parking management plan by the freeholders of the estate, adoption of the road by the council, or management via Network Rail or their franchisees.
- 3.5 **Design principle:** the junction between Grand Drive and the entrance to the Rainbow Estate should be safe for pedestrians, cyclists, drivers and other road users. It should take the opportunity to create an attractive legible space out of what is currently a shabby, poorly maintained, somewhat hostile area.
- 3.6 **Design principle:** As set out in the supporting reports to the Raynes Park Enhancement Plan creating a successful, safe and attractive environment can be delivered by using urban design solutions to delivered engineered plans.
- 3.7 **Design principle** Wherever possible urban design solutions should be sought to deliver safely, engineered plans for enhancing the area between the southern side of the Cattle Arch, the tunnel entering the Rainbow site and the Grand Drive pedestrian crossing. A safe, legible design will help the movement of people and traffic at this point, for example by using paved surfaces and kerb lines over guard rails, where it is safe to do so.
- 3.8 **Design principle:** Taking a consistent approach to materials, tone across different land ownerships and strong and consistent management and maintenance of this area across the various land interests will be essential.
- 3.9 **Design principle** Road and other paved surfaces should be consistent and coherent across this area, of good quality, well laid and well maintained.
- 3.10 **Design principle** There should be a consistency of materials, approach and tone / pallet to the public realm between the road and pedestrian entrance at Grand Drive and south side of the Cattle Arch and the entrance to the rail archway leading into the Rainbow site (see Figure 5). It is important that the different land ownerships and interests don't result in an inconsistent, disconnected streetscene.

- 3.11 The transport report accompanying the draft Rainbow planning brief details the assessments that have been carried out to inform the brief. It also provides details on how links were explored
- 3.12 **Design principles:** Being adjacent to the station supports a greater density of development and the provision of a higher proportion of one and two bedroom apartments to attract young professionals working in the borough, central London or the south east or “down sizers” seeking quality smaller properties with all the amenities of the local centre and transport links

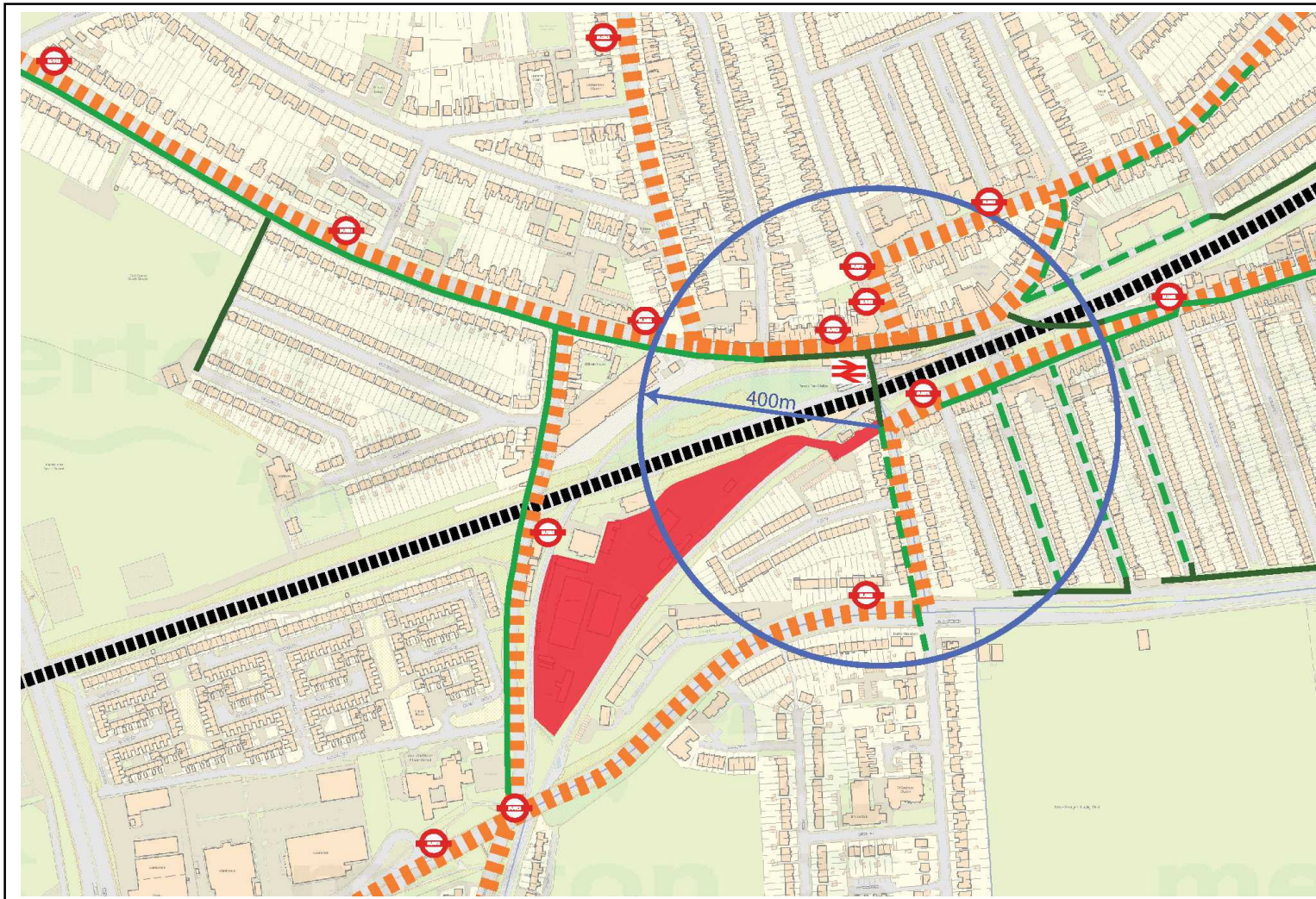


Figure 7 –  
access and  
transport  
links

## 4 Through the railway bridge

- 4.1 The entrance to the site is via a road passing under a 5metre high, box-section railway bridge. The road is 7m wide, enough for two cars to pass each other under the bridge but HGVs and coaches using the site have to give way. The road surface is currently unpaved and a crash barrier exists on the southern side under the bridge. Pedestrian access is currently shared with the road.
- 4.2 The engineering diagram completed for the new proposal illustrates a road width under the railway bridge will be 7m wide, the width of an average road, allowing two cars to pass along the road's length at all points. A pedestrian footpath can be accommodated on one side at a width of 1.8 metres under the bridge, rising to 2metres wide around the corner. (the recommended pavement width for safe and inclusive street design).



- 4.3 The curve of the road past the Station House interrupts the sight lines from the Cattle Arch and Grand Drive, dividing the site's interior from the entrance. The dark tone of the bridge, lack of light, height of the vegetated railway embankments and lack of visibility afforded by the curve of the road currently creates an unwelcoming sense of enclosure which must be addressed by any development proposals.

Fig 8: Railway bridge entering the Rainbow site, outside the former station house



Figure 9: Cattle Arch (2013) Raynes Park

- 4.4 **Design principle:** the railway bridge and the walls of the railway embankment emerging into the site must be kept clean, clear and well lit to create a safe, legible environment that draws people into the site.
- 4.5 Lighting should take cues from the treatment of the Cattle Arch, using energy efficient and robust systems such as LED and introduce some visual interest as well as functional lighting.
- 4.6 Options for safely separating the pavement from the road space should focus on street design solutions such as different surface treatments, raised kerbs (Trief kerbs) to help draw people into the site rather than guard railing or other physical barriers, where it is safe and appropriate to do so.
- 4.7 The "*Light at the end of the tunnel*" project from the Cross River Partnership is a relevant reference here.
- 4.8 **Design principle:** the opportunities can be taken to use different materials, tones etc within the site to those used at the entrance (although too great a contrast might not help the character)

## 5. Inside the site

- 5.1 Once inside the site, the first visible buildings should act as a focal point, starting the creation of identity and sense of place and improve the site's legibility by dividing between the commercial access road (running west) and the residential part of the site (running south). The site's first impressions should be a memorable one.
- 5.2 Although Raynes Park Local Centre itself has a strong, vibrant character, there is no recognisable character within the Rainbow Industrial Estate. Once someone has passed through the railway arch and is inside the site there are currently no distinctive features that create or reinforce a distinctive sense of place. The site is tightly constrained by the railway lines but the lack of existing permanent built form and the limited overlooking provides an opportunity to create a quality, distinctive, and contemporary character from scratch; a uniqueness not often found, or exploited in most development opportunities.



5.3 **Design principle:** the look of the first building on entering the site will play a major role in establishing a distinctive, quality sense of place for the Rainbow site.

5.4 **Design principle:** This apex of the site presents opportunities for a striking, innovative architectural style as this building must set a distinctive quality, character for the estate and there are no significant external cues to the site to reference from.

Figure 10: view from just inside the site (away from railway bridge)

- 5.5 **Design principle** Building design, materials and tones that help to reinforce sense of light, space and activity will help to counteract the sense of enclosure created by the overhanging trees and the high railway embankments. Its scale and massing should not be overbearing; limiting the height to 4-5 storeys and setting back upper floors from the building line.
- 5.6 The three railway embankments surrounding the site on all sides are designated in Merton's Development Plan as green corridors to enable the movement of animals and plants further into urban areas than might otherwise be the case. As well as supporting species habitat and movement, the vegetation surrounding the site helps to create and enhance the character of the site, softening and screening the boundary of the railway lines from within the site.
- 5.7 **Design principle:** redevelopment of the Rainbow Estate will be expected to make effective use of planting and landscaping to complement the existing green corridor and create a cohesive character for the site.
- 5.8 **Design principle:** urban design features, such as soft landscaping and lighting columns can be used to create and reinforce parking areas and support the free flow of traffic and establish a sense of separation and defensible space between more public areas and front doors.



## 6. Employment area and their access

- 6.1 For the time being, the Network Rail buildings and enclosed yard set in the north east corner of the site will remain in situ and operational, served by an access road running under the railway arch and along the northern boundary of the site. This influences the layout of the site: new employment buildings should be located close to the existing Network Rail buildings and yard.
- 6.2 **Design principle:** to reinforce character and improve legibility, new employment buildings should be located close to the existing Network Rail buildings and yard.
- 6.3 **Design principle:** the road layouts within the site can improve the legibility of the site: the road divides just inside the entrance, reinforcing a separate character for the more business area and the residential area.
- 6.4 As the commercial buildings will be two storeys: studio / warehouses below connected to office units on the upper floors and will be located at the centre of the site, addressing the existing Network Rail properties, they will be a focal point of the site.
- 6.5 **Design principle:** It is important that the commercial buildings are designed to have some form of activity or engagement with the street on their eastern flank, so as not to create a dead, unattractive space for pedestrians between the entrance to the site and the most southerly buildings.
- 6.6 **Design principle:** There is very limited scope to alter the location, layout, scale or height of the business buildings. As these will be at the centre of the site, visible to all other site users, the design of these buildings will be important to establish and continue high quality character throughout the site.
- 6.7 The main usable outdoor areas within the site will be:
  - the road leading to Network Rail's operational landholdings and the business units. Due to the more commercial nature of the traffic, this road could be of a harder wearing surface than the pedestrian road.

- The pedestrian road leading down the eastern side of the site is likely to take the form of a shared surface at different times of day, although opportunities should be provided for pedestrians to use pavements. The railway lines descend and the embankments are protected as green corridors for wildlife and are covered in mature trees and shrubs.
- 6.8 **Design principle:** continuing the landscaping and planting, especially down the residential access road within the site, and bringing it into the site wherever possible will establish character, soften the site, help enhance the green corridor.
- 6.9 **Design principle:** buildings must engage with the streets inside the site to create a more active environment and enhance the sense of safety and natural surveillance. Ground floor residential units should all have their own front door opening onto the street.
- 6.10 **Design principle:** most of the site will have a sense of privacy. It is important that this is designed, lit and managed to reinforce activity and not make it seem dead and passive.

## 7 Residential areas, access and spaces

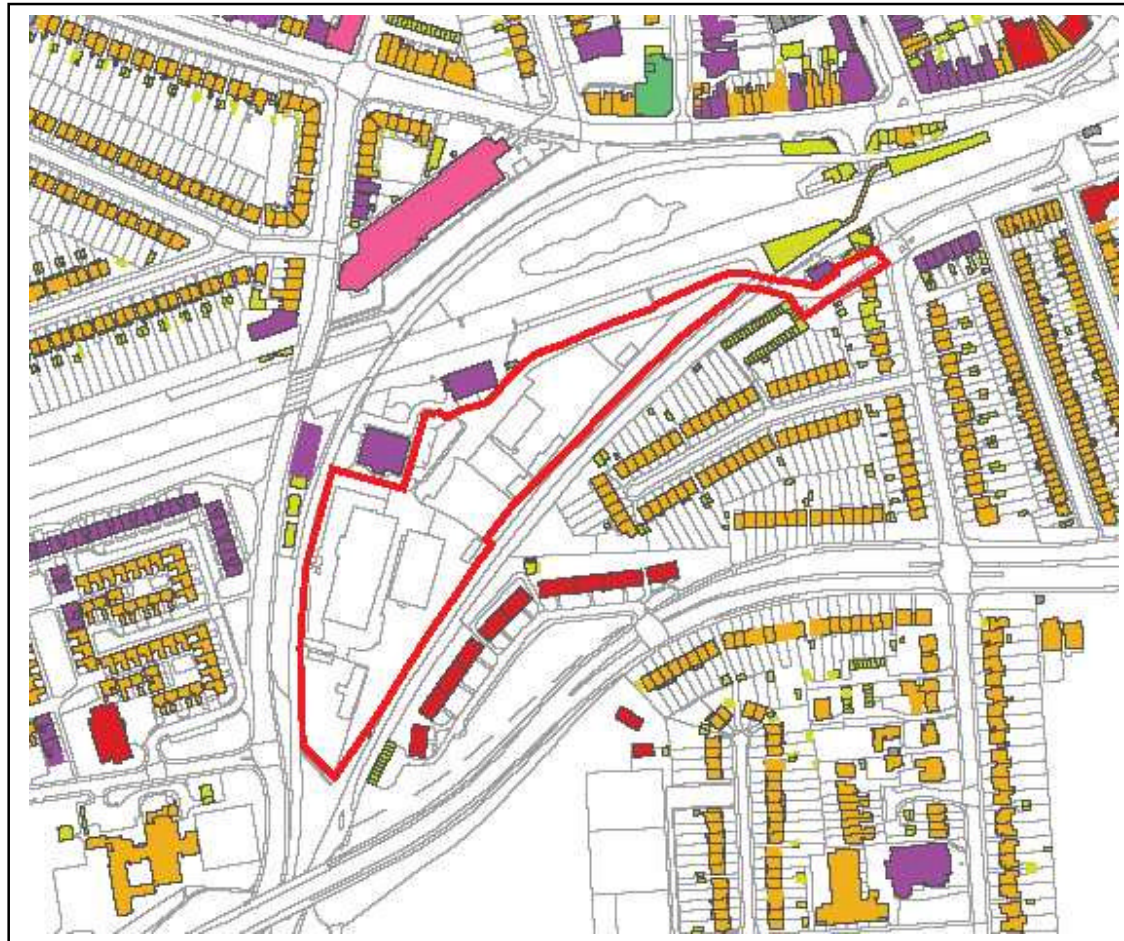
7.1 An essential factor in creating an attractive, quality character will be the site layout, scale, height and massing of buildings.



7.2 There are a variety of existing structures which will remain inside the site, which influence the site's current character and should be used as a reference for future quality character. To the northern end of the site, there is a sense of enclosure created by the height of the railway embankments (over 5metres from ground level at its highest) topped with semi-mature trees and other vegetation.

7.3 **Design principle:** the varying heights of structures around the Rainbow Estate can provide opportunities for and constraints to creating a sense of identity within the site. Buildings at the southern end of the site should be the highest structures, to give the site a focal point at its end that will help people to navigate around it.

Fig 11: view towards site entrance (2012)



### Building Heights



Fig 12: analysis of local building heights

7.4 The topography slopes away to the southern end of the site and the railway lines on both sides descend under the Bushey Road bridge, which rises up approximately 15 metres from the site boundary. Unlike the northern section this southerly end



Fig 14 (to right) view from Bushey Court to the site

of the site is partly visible from West Barnes Lane and residential properties in Carter's Estate, the upper floors of Bushey Court (also residential) and from pedestrians on the north side of Bushey Road bridge.

Fig 13 (to left) view from the site to Bushey Court in the background





Fig 15: analysis of transport infrastructure – height and massing



Fig 16 view of Rainbow from West Barnes Lane (west side) - 2013

7.5 Due to the proximity of the railway lines as the site narrows, West Barnes Lane and Bushey Road, the end of the site will be noisier for site users than the northern half.

7.6 **Design principle:** the visibility of this end of the site from West Barnes Lane and Carters Estate will require buildings to be designed with attractive, engaging facades.

7.7 **Design principle:** residential buildings should be orientated to maximise sunlight into habitable rooms such as living areas and kitchens.

7.8 **Design principle:** the additional noise generated

from outside the site may require balconies to be enclosed “winter gardens”

7.9 **Design principle:** planting and landscaping should be used to help reduce noise, air pollution from the nearby roads, especially along the western side of the site. It will help to soften the environment within the site and create a theme running from the nature conservation embankments to the north down through the site.

- 7.10 The architecture itself can be creative and unique given the site's characteristics. The design should reflect, or play-upon the site's industrial heritage. The design of the public realm may also take cues from the existing rail siding and cobbles that remain in the existing access road.
- 7.11 Good travel patterns must be established from the outset. Measures that will be used to do this include the provision of secure parking for at least one cycle space per residential unit and at least one cycle space per 250sqm of gross business floorspace in small, secure covered units. The Cambridge Cycle Design guide is a useful reference for best practice. To encourage cycling to be used as much as possible, especially for short trips, it states that residential cycle parking should be:
- Covered
  - Conveniently sited as close as possible to front doors, not obstructing vehicles or pedestrians (e.g. between other pieces of street furniture)
  - Easy to get to, without the need to lift or drag the cycle to park it and not located along inconvenient detours or narrow access ways
  - In a place with good lighting and natural surveillance to make it feel safe and secure
  - Attractive: designed in keeping with their surroundings (including the colour of the stands) yet practical – the simple "Sheffield" type stand is recommended
  - Well managed and consistently maintained and cleaned through a funded regime as part of the leasehold. The process to access the cycle storage should be clear to residents and visitors.
- 7.12 The provision of dedicated bays for car clubs will also be required to help reduce road congestion, similar to the dedicated bays provided at the Thames Water development on Coombe lane.
- 7.13 All parking spaces – whether for vehicle, cycle, business or resident – must be provided on site and provided to the standards set out in the London Plan 2011. Street-level parking should be in clearly allocated bays and must be designed and managed not to interrupt the free flow of traffic..



