

Royal Docks strategic cycle network

- Existing/committed cycle connections
- Cycle Superhighway 3 - Barking to Tower Gateway
- - - Proposed Cycle Superhighway 4 - Woolwich to London Bridge

- Important link - to be provided or upgraded
- Cycling infrastructure to be delivered through private development / area regeneration
- Future aspiration - extension of Thames Path (walking and cycling)

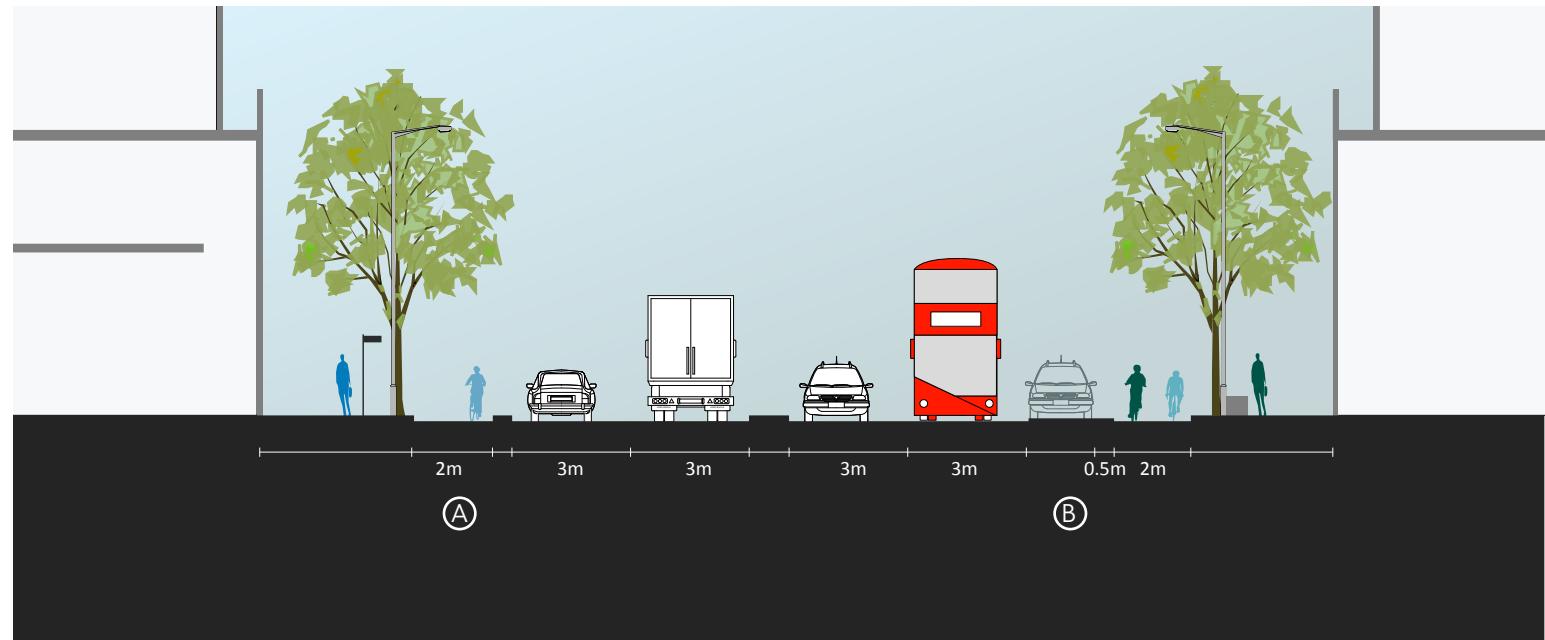
- Network of local streets providing an important part of the cycle network - opportunities to enhance this through new local connections
- Future connection to potential river crossing and Roding Valley Way

4.4 FULL SEPARATION

Full separation will be sought on busy roads that include a range of different vehicle types including freight or servicing vehicles.

Design principles for fully segregated cycle routes include:

- Continuous physical buffer between cyclists and vehicles, or vertical stepping of cycle tracks at an intermediate level between the footway and carriageway
- Smooth machine laid surfacing for a comfortable ride
- Continuous route avoiding unnecessary stops or obstructions
- Connections to intersecting cycle tracks/streets with on-carriageway facilities
- Good street lighting and clear signage for cycling



Example street cross section showing full separation of cycleway

Design standards:

- A One-way cycle tracks should be at least two metres wide to allow for passage of all types of cycle
- B Where on-street parking is provided, the cycleway should be located on the footway side to reduce potential conflicts with vehicles crossing the cycle lane to enter or exit the carriageway. A buffer zone of at least 0.5 metres between cyclists and parked cars is recommended in order to minimise risk of collision between cyclists and car doors.
- C Floating bus stops should be used to minimise interruption to cycle flow



Segregated cycleway, Rotterdam



Continuous uninterrupted cycle path, London



Cycle Superhighway 7, London Bridge



Parking and cycling (unknown location)

4.5 DEDICATED CYCLE LANES

These can comprise mandatory cycle lanes or light segregation.

Mandatory cycle lanes are marked for exclusive use of cyclists during the advertised hours of operation. Light segregation will be sought on busy routes where a mandatory cycle lane may be appropriate but where safety can be improved by physically separating bicycles from motor traffic.

Light segregation comprises the separation of cyclists and vehicles by intermittently placed objects such as planters or bollards. Design principles for light segregation include:

- High-quality materials palette
- Smooth, generous cycle tracks
- Good cycle parking provision
- Continuous route avoiding unnecessary stops or obstructions

Light segregation has many benefits over full segregation in that it is easier to install, usually costs less, is more adaptable and does not create barriers to pedestrian crossing movements.

Design standards:

- One-way cycle tracks should be a minimum of two metres wide
- Where cycleways are adjacent to bus lanes, bus stop bypasses may be used to reduce potential conflict and provide continuity



Example street cross section showing light segregation of cycleway



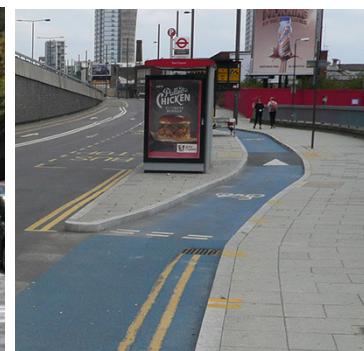
Light segregation, Camden



Light segregation, Antwerp



Light segregation, Vancouver



Bus stop bypass, Stratford High Street, London

4.6 SHARED LANES

Shared lanes can comprise:

- Shared bus lanes, where cycles may use the full width of the bus lane during and beyond its hours of operation; or
- Advisory cycle lanes, which are intended for, but not legally restricted to, cyclists' use

Shared lanes are appropriate for Street Types that have a reasonably high movement function, but where speeds are not excessive. For mass cycling, however, shared lanes are only suitable when traffic flows are quite low.

Design features of these routes should include:

- Traffic calming where appropriate
- Quality, consistent materials
- Clear signage and good visibility for cyclists
- Early start facilities to be provided on all advisory cycle lanes where possible
- Explore the use of bus stop bypasses in appropriate locations to allow freer movement of cyclists along the street
- Good cycle parking provision

Design standards:

- A When sharing lanes with motorised traffic lanes should be less than 3.2 metres or over 3.9 metres. If cyclists are sought to share lanes with buses or other large vehicles traffic lane widths should be 4.5 metres
- B Where cyclists and vehicles are on carriageway together a 20mph speed limit should be imposed and designed in



Example street cross section showing shared outside lanes



With-flow bus lane, London

4.7 INTEGRATION

Cycle streets give cyclists assumed priority in a speed restricted area, variously marked with or without cycle lanes or indicative areas for cycling.

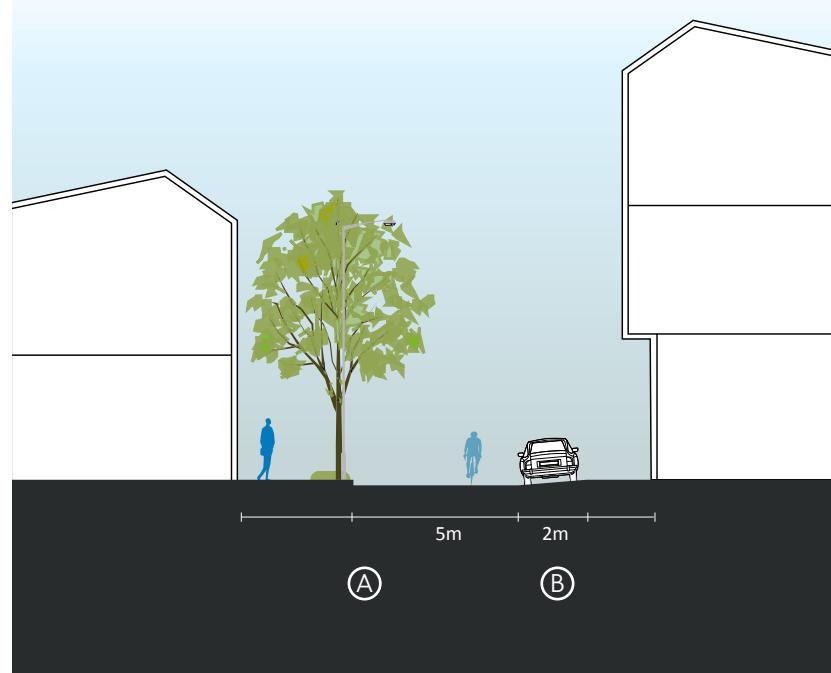
These should be part of a wider network of quiet routes through the Royal Docks area, allowing cyclists to use them for a range of different journey types. These routes should provide access to physical, social or cultural assets in the area including the Dockside and River as well as quieter connections between residential areas and schools or places of worship.

Design requirements include:

- Generous lanes to ensure a comfortable relationship between cyclists, pedestrians and motor vehicles
- Filtered permeability can be implemented to eliminate through traffic
- Materials should be smooth and consistent to maximise comfort

Design standards:

- A Where vehicles and cyclists share the carriageway a 20mph speed limit should be imposed and designed in
- B On-street parking can create a conflict for cyclists. This should be minimised where possible, restricted to one side of the carriageway or inset into the footway



Example street cross section showing cycling integrated into the street corridor



Shared space, Berlin



Shared space, Stanmore



Homezone, Rotterdam



Woonerf, Netherlands

5.0 PUBLIC TRANSPORT

5.1 DLR STATIONS AND VIADUCTS

In areas such as North Woolwich Road where there is an interface between new development and the DLR, there may be opportunities to utilise the area around the tracks, stations or beneath the viaducts to enhance the overall character and intensity of the street.

5.1.1 OWNERSHIP AND OPERATION

DLR's ownership of land around their tracks and stations varies according to location and conditions. For viaducts DLR generally owns the viaduct structures and the airspace above them (all buildings must be maintained without any over-sailing over or alongside the DLR viaduct). DLR does not generally own the airspace or ground below the viaducts, with the exception of the ground on which the columns sit, however they own contractual land rights, referred to as 'protection zones' normally running five metres either side of their fence or viaduct. These protection zone rights will exist independent of development proposals or planning permissions.

These land rights generally limit land uses within the protection zone to road, pathway, landscaping and car parking. For any proposals outside of these activities, DLR would need to assess these on a site specific basis to consider how each proposal would affect the protection zone.

Proposals to enhance these areas should address one or more of the following objectives:

- Enhancements to the quality, legibility and usability of the public realm around stations and viaducts
- Improvements to safety of passengers going to and from the station
- Opportunities for commercial enterprise which would help to animate the area around the station

Any proposed intervention coming into contact with the DLR stations, track or viaducts would need to refer to DLR's technical guidance for third parties, and DLR would need to give final consent.

5.1.2 STATION PUBLIC REALM ENHANCEMENTS

Where enhancement to the public realm beneath or around a DLR station is considered, proposals should build on the wider place-shaping role of the station by responding to the following principles:

- Provision of street furniture which can provide passive resting points
- Provision of good quality pedestrian crossings to improve access to and from the station
- Provision for seamless cycle interchange (including cycle parking, crossings and good signage of cycle routes for onward journeys)
- Incorporation of Legible London or agreed alternative signage to improve wayfinding
- Planting of trees where possible, in particular in areas where the track and stations are elevated to create a more human scale and provide shade and shelter
- Where high level pedestrian connections to elevated DLR platforms are proposed, these should be located on desire lines with clear signage for onwards routes, and designed to have a positive impact on the streetscape

5.1.3 ATTRACTIVE ROUTES FOR PEDESTRIANS AND CYCLISTS

Continuous pedestrian and cycle routes beneath the DLR viaducts would be an optimum use of this space, complemented by soft landscaping and SUDS features where appropriate. Design should make the distinction between cycle route, pedestrian areas and furniture zones clear.

5.1.4 FEATURE LIGHTING

DLR would be supportive of improvements to safety, in particular in station and viaduct under-crofts. Feature lighting of these under-crofts could be considered as part of a unified strategy for the area. The development of this strategy would need to clearly define arrangements for maintenance and upkeep.

5.1.5 SPORTS FACILITIES/PLAY

The provision of sports facilities and play areas beneath the viaducts may be considered in specific locations. This would need to be explored on a site by site basis with DLR.

Ball games may not be permitted unless appropriate protection is in place to prevent balls from getting on the track.

5.1.6 EVENTS AND TEMPORARY ACTIVITIES

Events such as street markets or outdoor cinemas could be explored on an occasional basis. DLR would consider each proposal on its merits. It should be noted that for safety reasons uses that could lead to smoke or fire, such as hot food preparation, would be considered inappropriate.

5.1.7 TEMPORARY STRUCTURES

There may be opportunities for temporary demountable structures to be located beneath the DLR viaducts in some locations. Proposals would need to be supported by a clear rationale, and any items would need to be movable on short notice (around 48 hours) and not encroach on space needed for maintenance or risk damage to the structural columns.

5.1.8 PUBLIC ART

The provision of public art along the DLR viaducts or around the stations could be considered, provided that any proposals were developed closely with TfL and DLR. Proposals would be considered based on their merits and positive impact on the wider urban realm.



Above from top:

DLR viaduct, looking westward from Pontoon Dock Station

Landscaping beneath DLR viaduct, Barrier Park East development (North Woolwich Road)



5.2 CROSSRAIL

Crossrail will significantly improve connections between the Royal Docks and central London. The interchange at Custom House will act as a major local attractor, drawing footfall from across the borough and wider area.

The local movement network should be enhanced to connect neighbourhoods and centres in the wider catchment to Custom House Interchange. Well designed, lit and signposted pedestrian and cycle connections can help to encourage walking and cycling in the area, with cycle parking at the station allowing for easy interchange onto Crossrail, DLR or the bus network.

Custom House Station should provide a good interchange between public transport modes including a bus station and the DLR.

As new connections are delivered through emerging development sites, these should connect into a wider network of routes linking public transport hubs across the Docks and wider area.

5.2.1 CROSSRAIL WALL

The Crossrail corridor is protected in places by a solid wall. This should be enhanced to ensure that where possible it can become an attractive feature of the local streetscape.

Opportunities to animate the area around the wall through public art, lighting, street furniture or temporary uses should be explored.

Regular crossings and connections will be required to mitigate the potential severance caused by this element and ensure that communities and destinations on either side remain well integrated.

This page, from left:

Artist's impressions of future Crossrail station at Custom House
West Hampstead Station, Landolt + Brown
(Image source: www.architectsjournal.co.uk)



5.3 BUS INFRASTRUCTURE

Bus stops should be situated near places of particular need such as local shops, health facilities, schools or sheltered housing. Precise locations are determined by London Buses in consultation with highway authorities and the police.

We use a distance of 400 metres / five minutes walk for assessing the proximity of bus stops.

Design considerations include:

- Providing adequate footway width to allow for waiting space as well as uninterrupted pedestrian flows
- Locating bus stops close to (on the exit side of) pedestrian crossings

- Should be located 'tail to tail' on opposite sides of the road
- Ensuring that there is adequate space to provide a bus shelter
- Where bus stops interchange with other modes they should be sited to minimise walking distance between stops

5.3.1 BUS TERMINI

Where new bus stop and stand facilities are proposed in the Royal Docks the following principles should be considered:

- Bus termini should be designed to minimise the impact of bus standing on the wider streetscape environment
- Pedestrian crossings should be provided ensuring that good sight lines are maintained
- Bus standing should be set away from the street frontage to make sure cycle routes are not interrupted

Image:

Avignon Bus Station, well integrated into the wider public realm

6.0 WATERWAYS

6.1 DOCK AND RIVER EDGES

The waterways are a defining feature of this area, and a fundamental reference to the historical significance of the Docks. New development should respect the historic waterways and open up access to them as vital elements of the area's past and future identity.



Tidal Basin, 2014 (TfL)



6.2 PEDESTRIAN AND CYCLE ACCESS

As sites in the Royal Docks are developed, we will seek to safeguard continuous connections for pedestrians and cyclists along both the River and Dock edges. These connections will over time join up to create a continuous route.

Patterns of land use and land ownership make access to the waterway challenging in some locations, such as around London City Airport. Where this occurs alternative high-quality quiet routes should be provided, reconnecting back to the water's edge at the next available opportunity. These bypass connections should be clearly signposted to ensure their legibility as part of the waterside route.

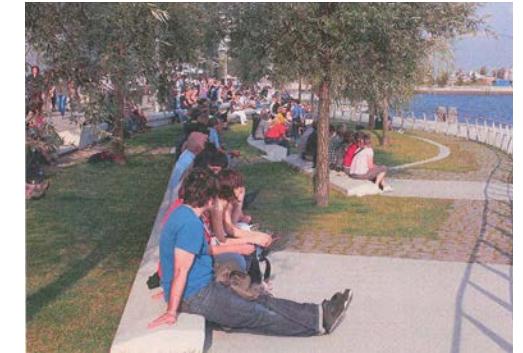


6.3 ACTIVITY AND ANIMATION

As new development brings activity back to the Dock edges, these will become places where people can connect with the history of the area.

Design principles include:

- Establishing clear visual connections to the water from the wider street network
- Ensuring materials choices provide a high level of user comfort for pedestrians and cyclists
- Animating the Dock edges through the provision of new public spaces, play or active uses which will generate footfall and activity all year round



It should be noted that within the London City Airport Safety Zone (which includes part of the Dock edge as shown on the diagram overleaf), uses that may encourage the congregation of people are not permitted.

This page - images left to right:

Hafencity, Hamburg

Activity around the Emirates Air Line, Royal Docks

Landscaping at Tidal Basin, Royal Docks

Hafencity, Hamburg

6.4 CROSS-WATER CONNECTIONS

New bridges and other cross-water connections present the opportunity to create major new landmarks for the area.

Where new bridges are proposed, high-quality material treatments should be explored, with careful consideration given to the width of the deck to allow adequate space for both pedestrians and cyclists.

Bridges should be well-lit, to ensure safety and security at night while also enhancing appreciation of their structure and form. Ramps and steps should be designed to integrate well into the public realm.

Wayfinding should be carefully considered when designing new bridge connections, ensuring that they are well integrated into the local movement network and well signposted from primary routes and public transport hubs in the wider area.



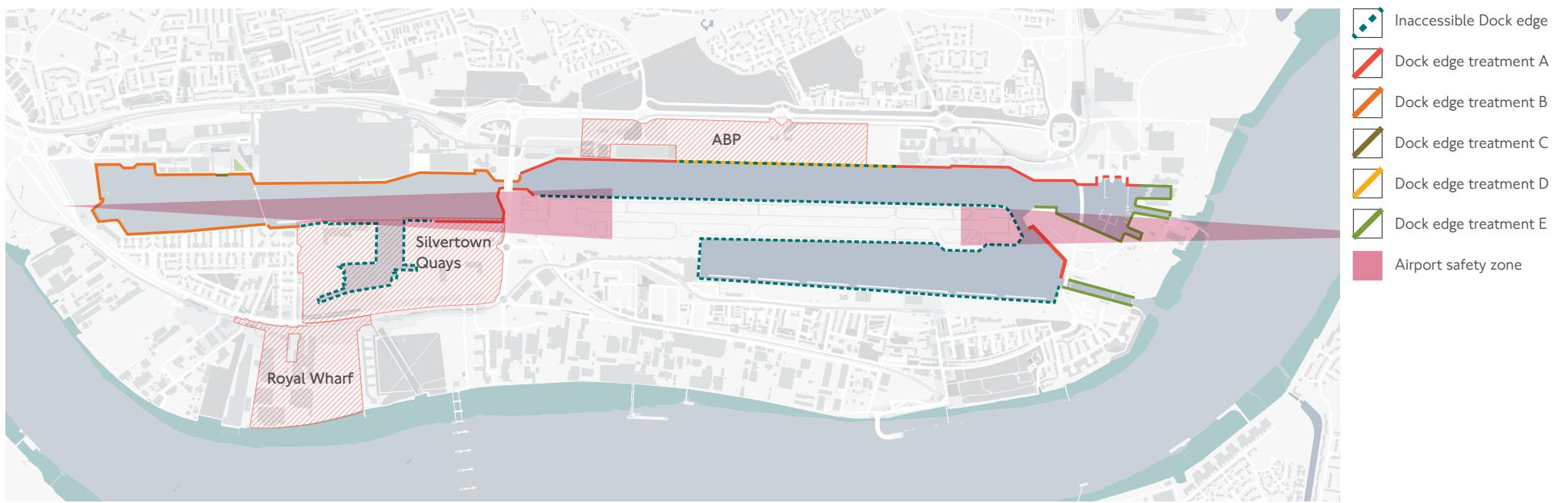
Royal Victoria Dock, 2014 (TfL)

6.5 DOCK EDGE/RIVER WALL

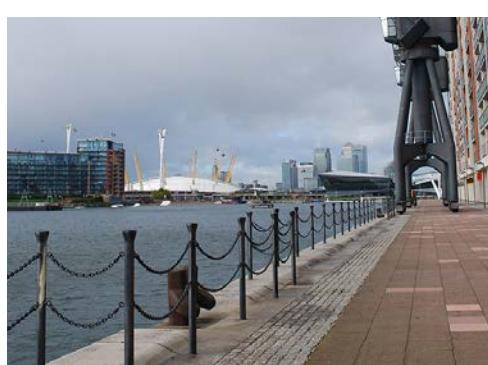
The treatment of Dock edges and the River wall will be an important design consideration for all waterside sites.

Several edge conditions exist in and around the Docks. In more actively used areas it is advisable to adopt a more impermeable solution than the existing post and chain fences (as shown above), however in areas that are calmer with less footfall the post and chain fence could be appropriate.

As sites along the Dock edges are developed, developers should engage with the Royal Docks Management Authority (RoDMA) to agree Dock edge treatments. Where possible we would seek to standardise these treatments to ensure consistency and continuity between development sites and land ownerships.



Dock edge treatment A



Dock edge treatment B



Dock edge treatment C



Dock edge treatment E

7.0 STREETSCAPE MATERIALS

7.1 MATERIALS GUIDANCE

The Royal Docks Public Realm Materials and Elements Palette was adopted in February 2011. The palette (summarised in the following section) is designed to give a unifying character to the Royal Docks area and help to ensure seamless integration between existing and emerging development.

7.2 CONTINUITY BETWEEN EXISTING AND NEW

The new palette should be able to sit effectively with the existing context without noticeable disjunctions. Specifically the palette should take into account:

- The material history of the Docks and the heritage of materials chosen for utility and engineering performance
- The London Docklands Development Corporation phase of public realm infrastructure
- London Borough of Newham highways design standards

7.3 BACKGROUND NOT FOREGROUND

There can be a tendency for new developments to use materials and design elements to advertise difference and to signal individuality from neighbours. If extended across a number of sites this approach is seen as a recipe for chaos in the public realm. Agreement on a limited number of elements is seen as a way of countering this tendency and creating a sense of commonality and unity in the public realm.

7.4 QUALITY AND USE OVER APPEARANCE

The choice of materials and elements should be driven by performance and not aesthetics. Surface treatment should be comfortable underfoot to encourage pedestrians and cyclists to use the Docks more actively.

7.5 WHOLE LIFE ENVIRONMENTAL IMPACT

Consideration should be given both to the use of reclaimed materials in new constructed elements of the public realm (eg granite setts, concrete kerb elements and railway sleepers, bench timbers) and to the potential for materials to be reclaimed and reused at a later date (eg engineering brick pavers, cast iron bollards).

7.6 ADOPTION AND MAINTENANCE

Significant elements of the public realm to be guided by this palette will fall within highways land or otherwise continue in some form of public ownership. This is a further case for ensuring the use of durable and widely available materials, taking into account ongoing requirements for maintenance and repair.

7.7 STANDARD DETAILS

Where practicable a standard building threshold treatment should be applied along all major routes to add an additional level of uniformity to the streetscape. This is particularly relevant where retail and other commercial units may overspill into the public realm. Threshold treatment should be robust, using materials that are already found in the area.



7.8 MATERIALS PALETTE

7.8.1 BLUE ENGINEERING BRICK

Plain drag-faced or patterned Staffordshire Blue engineering bricks for general paving use on or off-plot.



7.8.2 CONCRETE PAVERS

Standard pre-cast concrete pavers as borough highways standard. For use on adopted sections of public footway only as specifically agreed. Not for general use within development plots.



7.8.3 RECLAIMED OR NEW GRANITE SETTS

Traditional granite setts for paving use on or off-plot. It is anticipated that areas of existing setts on relevant sites may be taken up and re-used as part of the new public realm links.



7.8.4 RECLAIMED GRANITE KERBS

Additional hard landscaping/paving option for use on or off-plot for vehicular, cycle or pedestrian use.

Avoid use where access to underground services may be required.

Images:

Royal Docks Public Realm Materials and Elements Palette, 2011



7.8.5 EXPOSED AGGREGATE CONCRETE SLABS

Additional hard landscaping/paving option for use on or off-plot for vehicular, cycle or pedestrian use.

May be used in conjunction with reclaimed timber or galvanised steel trims and joint details.

Avoid use where access to underground services may be required.



7.8.6 BRUSHED CONCRETE CAST IN SITU SLABS

Additional hard landscaping/paving option for use on or off-plot for vehicular, cycle or pedestrian use.

May be used in conjunction with reclaimed timber or galvanised steel trims and joint details.

Avoid use where access to underground services may be required.



7.8.7 ASPHALT/TARMAC SURFACE

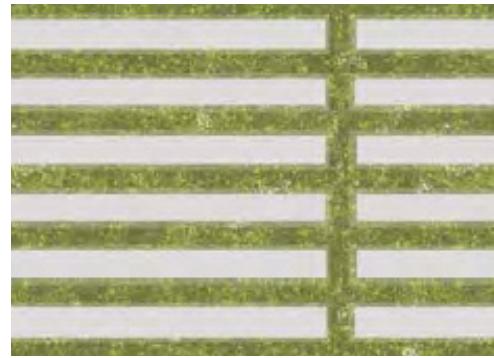
Black asphalt finishes as borough highways standards for use off-plot for vehicular roads, footways and cycleways.



7.8.8 SELF BINDING/BREEDON GRAVEL

Compacted semi-permeable surface for use in locations with low to moderate traffic or soft landscaping areas.

Can be used in busier areas to provide an edging treatment or surfacing for tree pits.



7.8.9 CONCRETE SLEEPER GRASS CRETE

Semi-permeable paving solution for use in areas with infrequent vehicle traffic (eg emergency service routes) or other soft or semi-wild landscape settings.

Use to create permeable semi-vegetated areas of paving. Gaps vary to suit. Herbs or wildflower mixes may be used to seed infill/topping.



7.8.10 SPECIAL TREATMENTS

There will be some opportunities for special treatments to be used to strengthen the identity of specific locations. Where this is proposed design teams should ensure agreement of LBN, TfL and the GLA.

Special treatments should adhere to the following principles in order to ensure a consistent language in the Royal Docks area:

- Use of inlaid materials such as timber or metal to reference the history of the Docks and create subtle variation to the primary surface treatment
- Variation in tone, finish or module size to define subtle difference

Images:

Royal Docks Public Realm Materials and Elements Palette, 2011

8.0 STREET FURNITURE AND ELEMENTS

8.1 STREETSCAPE ZONES

The area between the kerb line and the highway boundary can be divided into four zones, which serve distinct functions within the streetscape.

Kerb Zone

A kerb zone should be kept completely free of street furniture to prevent damage from vehicles overhanging the carriageway edge.

Furniture and Planting Zone

The furniture zone is provided adjacent to the kerb zone to coordinate street furniture in a consistent arrangement which maximises the unobstructed width of the footway for pedestrian use. Features such as lighting and signage should be located in this zone, along with cycle parking, seating and other amenity elements.

Furniture should only be provided where it serves a specific function and is appropriate for the location. A furniture zone should therefore not exist where there is no need for street furniture.

Footway Clear Zone

The clear zone should be entirely free of permanent and temporary street furniture, to allow for unhindered pedestrian movement along the footway. The width of the clear zone provided should relate directly to the character and use of the street, and in particular the volume of pedestrians.

Frontage Zone

The frontage zone is the area adjacent to the property line and highway boundary. Wherever possible this zone should be kept free of street furniture to:

- Enable visually impaired people who use canes to navigate the street using the building line
- Minimise obstructing retail frontages to encourage window browsing

The relative importance, scale and treatment for each of the zones will vary according to the context.

8.1.1 FURNITURE PLACEMENT STANDARDS

Seating

- Recommended set back from kerb for inward facing seat - 1,000mm
- Recommended set back from kerb for outward facing seat - 2,000mm
- Maximum recommended spacing interval for seating on high streets and steep inclines - 50 metres

Bins

- Litter bins should be placed a minimum of 450mm from the kerb edge

Signage

If Legible London signage is used, the following standards should be adhered to:

- Liths - placement should be a minimum 450mm from the kerb edge, and increased to 800mm on flush surfaces or where road speeds are 40mph or greater
- Finger posts - designers should ensure that the sign allows for a minimum clearance of 450mm away from the kerb edge for any part of the sign, including the fingers. This can mean that the pole for the sign needs to be mounted more than 1,000mm from the kerb edge



Furniture placement standards

8.2 STREET FURNITURE

With the exception of bespoke furniture in specific locations, street furniture should adhere to the Royal Docks Public Realm Materials and Elements Palette, 2011. This will ensure a uniform reading of the public realm throughout this area and between the different land ownerships.



8.2.1 SEATING

Formal seating should be robust, easy to maintain and in keeping with the wider character of the Royal Docks area, in terms of materials and form.

Formal seating should be provided according to the following criteria:

- Adjacent to or visible from a pedestrian route
- Where pedestrian flows will not be impaired
- In an open aspect that enables approaching pedestrians to be seen
- In areas of natural surveillance to minimise antisocial behaviour

- So as to avoid impeding access to buildings
- In public spaces that are attractive and in sunlit areas where possible, as these areas are more likely to be used
- Away from wind tunnels, such as between tall buildings, which could make their use uncomfortable
- Where possible a continuous run of seats should be provided where high use is anticipated. However, seating should not be placed directly opposite to one another so as not to encourage large groups to congregate.

8.2.2 BINS

Pressed Zintec steel, powder coated in standard black or palette of mid to dark grey. For use throughout the area.

Bin placement should be coordinated with other street furniture, such that bins may be positioned adjacent to seating. TfL bus infrastructure team should be consulted regarding any proposals for bins near to bus stops.

Bins should be placed according to the following standards:

- Bins should be positioned so as not to cause an obstruction on the footway
- Access to adjacent properties should not be constrained
- Visibility should not be obstructed
- Maintenance and access requirements should be considered

This page from left:

Seating at Royal Victoria Dock

Public realm - Emirates Air Line, North Greenwich

Zintec standard black bin

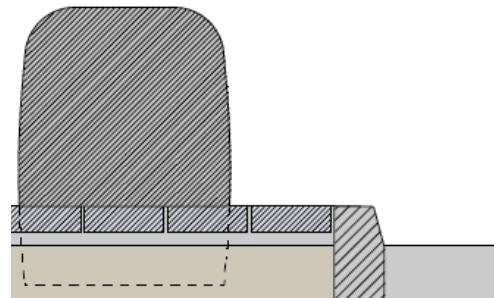


8.2.3 CYCLE PARKING

The provision of well-located and secure cycle parking facilities is vital for supporting the cycling growth targets for London, by enhancing the convenience and reliability of cycling.

The Sheffield stand offers a simple, durable and cost effective tubular design, enabling the frame of the bicycle and both wheels to be secured.

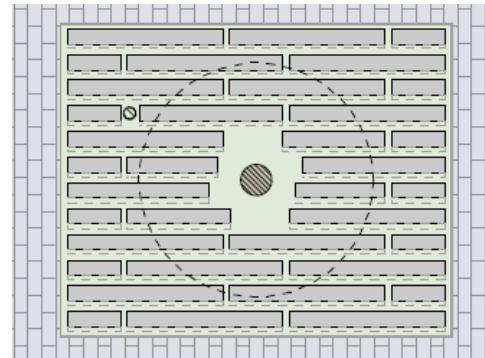
Cycle parking is best positioned where it is not visually or physically intrusive, yet is sufficiently overlooked for security purposes. The visual impact of cycle stands can be reduced if placed between other street furniture, such as tree planting, bus stops and seating, as part of a coordinated furniture zone. Echelon arrangements provide the most efficient use of space (as illustrated above).



8.2.4 BOLLARDS

Options:

- 1 Reclaimed granite bollard, for use where heavy vehicle access is barred (above)
- 2 Slender ductile iron bollard. For use where light vehicle barrier is required



8.2.5 TREE PITS

Surface within pit to be reclaimed pre-cast concrete kerbs laid with type I recycled fill and topsoil/limestone fines finishing layer. Galvanised steel edging to tree pit

Options:

- 1 Circular form pit where laid in exposed aggregate concrete slab or other non-unit paving
- 2 Rectangular form where laid in unit material

Street tree planting should be located within the furniture zone.



8.2.6 SIGNAGE

The use of signage providing directional elements and walking distance to destinations in the area will help to encourage people to explore the Docks on foot. The Legible London system or similar should be implemented through new development in the Royal Docks.

Images from left:

Cycle parking in echelon arrangement
Bollard and tree pit illustrations, Royal Docks Public Realm Materials and Elements Palette, 2011
Legible London signage design

8.3 LANDSCAPE

A coordinated approach to landscaping in the Docks will help to bring a human scale to the street and give structure to the public realm. The environment is in places windswept and exposed so tree planting will help to give protection to pedestrians and cyclists.

Landscaping in the Royal Docks should complement the streetscape rather than create a barrier to pedestrian or cycle movement.



8.3.1 FORMAL STREET TREE PLANTING

Mature tree planting should be provided along primary routes. Where possible existing planting should be extended to create continuous green chains through the area.

Planting will help to frame the street corridor and create a more pleasant pedestrian environment. Planting of mature trees can also help in the transition between the scale of buildings and the scale of the street or place.

In areas where footway widths are constrained, formal planting may be appropriate within a wide median strip.

This page - images left to right:

Formal tree planting, Royal Victoria Dock

Mature street trees along North Woolwich Road



8.3.2 INFORMAL TREE PLANTING

Informal tree planting is less structural in its role, and used more for improvement of environmental conditions. This may be more effective on local streets or connectors where the street cross section is narrower and smaller species can be used to define localised character through colour or texture.

Feature planting should be implemented carefully to create a focal point in areas of distinction such as pocket parks or pedestrian and cycle routes. Shading species can be provided together with seating and rest places to help to improve the urban comfort of all users, in particular the young and the elderly who are more affected by hot weather.

8.3.3 PLANTED AREAS

Planted build-outs or verges may be appropriate in some locations in the Docks to soften the streetscape and enhance the character as well as performing an important urban drainage function. These should be part of a wider strategy to ensure continuity of treatment and character along major routes.

Planting can be used to enhance or connect ecological links to support local flora and fauna, for example creating continuous ecological corridors along Core Roads connecting into the Royal Docks.

Species selection should be determined based on context, site conditions and future management. Airport Safety Zone ecological and safety issues must be considered when selecting species.

8.3.4 SUSTAINABLE URBAN DRAINAGE SYSTEMS

Sustainable Urban Drainage Systems (SUDS) such as swales, rain gardens and rain water harvesting grates should be incorporated into the public realm along street corridors where appropriate.

These can soften the streetscape and enhance its character, as well as perform an important urban drainage function.

This page - images left to right:

Feature tree planting, Moorgate

Meadow planting, Queen Elizabeth Olympic Park

Ecological corridor, Royal Docks

SUDS and cycle counter, Vancouver

8.4 LIGHTING



8.4.1 STREET LIGHTING: HIGHWAYS

As stated in the Royal Docks Materials and Elements Palette, 2011, generally new lighting columns should be tapered and fabricated from aluminium or steel. New luminaires should be unadorned with simple lines.

Energy saving measures:

- Adopt use of directed lighting to minimise light pollution
- Promote use of LED's or other appropriate low consumption fittings

8.4.2 EXTERNAL LIGHTING

External lighting not forming part of the highway, ie within individual development plots, should be aluminium tapered pole top luminaires or lighting bollards.

8.4.3 FEATURE LIGHTING

Feature lighting poles can form sculptural elements in important public spaces. Applied selectively these can help to create visual interest and characterise important locations.

Some potential applications of feature lighting are listed below (these should be explored in detail on a site by site basis):

- The multiplication of luminaires can give a good distribution of light
- Up-lighters in planted areas can provide additional feature lighting within the public realm
- Lighting of DLR columns or viaducts can enliven the streetscape in areas of activity
- Lighting can be incorporated into public art to enhance the perception of safety and interest at night, or used to animate blank frontages - such as the Crossrail wall



Above:

Images from Royal Docks Site Materials and Elements Palette, 2011

Feature lighting - Tidal Basin

8.5 PARKING AND SERVICING



8.5.1 ON-STREET PARKING

On-street car parking in new developments should be kept to a minimum, supported by travel plans which promote the benefits of walking, cycling and public transport for journeys in and around the Royal Docks area.

Where on-street parking is provided care should be taken to ensure that this does not dominate the streetscape. Lengths of parallel on-street parking bays should be broken up with pockets of landscape or tree planting to create variation and green the street corridor. Where possible parking should be inset into the footway and treated with complementary materials (as shown on the image above).

Where cycling is accommodated on carriageway, on-street parking should be designed carefully and kept to a minimum to avoid potential safety issues of car doors opening into the cycleway.



8.5.2 BLUE BADGE PARKING, COACHES AND TAXIS

Blue Badge Parking and coach and taxi drop off's should be inset into the footway where possible to ensure that these become an integral element of the streetscape design.

All blue badge parking spaces should be designed fully in accordance with the Department for Transport 'Inclusive Mobility' guidance so as to comply with the Disability Discrimination Act 1995 Standards.



8.5.3 SERVICING

Service bays should be well integrated into the streetscape, inset into the footway where possible.

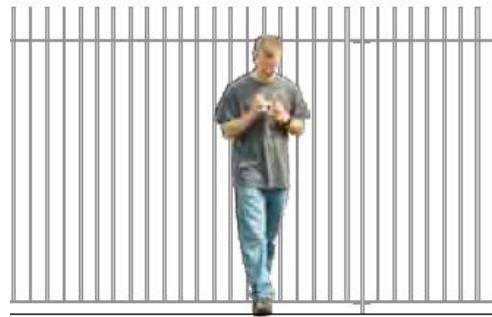
Commercial units should be serviced from the rear where possible to reduce interactions between large vehicles, pedestrians and cyclists.

We would support a centralised delivery point for goods which could be distributed by electric vehicle, on foot or by cycle.

This page - images left to right:
Inset parking bays, Royal Docks
Taxi stand, Richmond
Servicing within a high-quality streetscape, The Cut, Southwark

8.6 BOUNDARY TREATMENT

Boundary treatments should adhere to the Royal Docks Public Realm Materials and Elements Palette, 2011. This will ensure continuity across different land ownerships.



8.6.1 VERTICAL BAR FENCE

Fence in mild steel with verticals in 18mm round mild steel bar, horizontals in 75 x 12 mm mild steel flat, uprights in mild steel flat to suit.

Use: Property boundaries, parks and public open spaces

Options: Height to suit location



8.6.2 WELD MESH FENCE

Standard welded wire mesh fencing.
Galvanised or painted mild steel.

Use: Property boundaries

Options: Height to suit location. Top edge details either standard or flush



8.6.3 CANTILEVERED VERTICAL POST BARRIER

Galvanised or painted mild steel. Self finish to galvanising or micaceous iron oxide in mid – dark greys.

Use: Property boundaries

Options: Height to suit location. Electrically operated sliding gate to match

Images from Royal Docks Public Realm Materials and Elements
Palette, 2011



8.6.4 GABION WALL

Free standing gabion walls to provide boundary demarcation of highways, parks, land-ownerships etc.

Options: Height to suit location and context



8.6.5 BRICK WALL

Standard size brick laid in English Garden Wall bond with 10mm mortar joints. Suitable capping detail.

Brick - self colour to suit location/context
(London Stock Brick or Brindle are found in the Royal Docks)

Mortar - colour to suit brick

Use: Boundary demarcation of highways, parks, land-ownerships

Options: Height to suit location and context

MAYOR OF LONDON

