

**Greenwich Peninsula
Land Management Plan on
Behalf of English Partnerships**

**Section B
Component Management Plan
5. Other Areas**

April 2001

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Section B Component Management Plan 5. Other Areas

JOB NUMBER: AC1790			DOCUMENT REF: AC1790/D2/219/4956-e.063			
Draft	Internal Review	GF	AMB	AMB		02/05/00
1	Draft to Client	GF	MW	GF/AMB	J Gibbins	12/05/00
2	Final	GF	AMB	MW		18/04/01
		Originated	Checked	Reviewed	Authorised	Date
Revision	Purpose Description					

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EXECUTIVE SUMMARY

Some 119.6 hectares of the Greenwich Peninsula in East London have been subject to regeneration measures. The regenerated landscape includes notable areas of green space, which require management. Responsibility for land management for these areas lies with an organisation called the Greenwich Peninsula Trust.

A Land Management Plan has been prepared in relation to this land holding and is in two sections. Section A covers the land holding in general and provides detail on those elements which are best considered at the peninsula-wide scale. Section B comprises a series of five component area plans relating to identifiable management units within the overall holding.

This document is the first 20-year Component Management Plan for the following sub areas of recently created Green Space on the Greenwich Peninsula in London:

- A102(M) road bund and verges;
- Fearon Street Pocket Park;
- Bugsbys Way Pocket Park;
- Streetscape Areas (remaining roads not covered under the parks in Component Management Plan 3 and the Trans-Peninsula footpath); and
- School and Health Centre site bund planting.

The above areas form a part of the redeveloped Peninsula, within which all Green Space is to be managed holistically, to ensure that standards of management are consistent, high and in keeping with the carefully developed design intentions for landscape, ecology, transport and other aspects of human amenity. This component document should be read in conjunction with the Peninsula-Wide Management Plan.

PART 1 – DESCRIPTION

1.1 GENERAL INFORMATION

Location

The areas are located at the following Grid References:

- Fearon Street Pocket Park TQ402785;
- Bugsbys Way Pocket Park TQ402788;
- A102(M) road bund and verges; bund located at TQ397787;
- Gateway roundabout (part of A102(M) works) TQ396791;
- Millennium Way, from Gateway roundabout to roundabout at the Dome at TQ391799;
- Blackwall Lane, from A102(M) road to Gateway roundabout;
- Bugsbys Way, from Gateway roundabout to Bugsbys way roundabout at TQ402788;
- Pear Tree Way, from Fearon Street Park to Greenwich Yacht club at TQ402792;
- John Harrison Way, from Gateway roundabout to Riverside walk at TQ399794;
- Edmund Hailey Way, from TQ391796 to Riverside Walk at TQ396799;
- Trans-Peninsula Path, from TQ394794 to TQ397796; and
- School bund landscape planting on Gateway roundabout side of the new School and Health Centre site at TQ397791.

These locations within the Peninsula are shown in Figure 1.1.

Land Tenure

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

Management Infrastructure

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

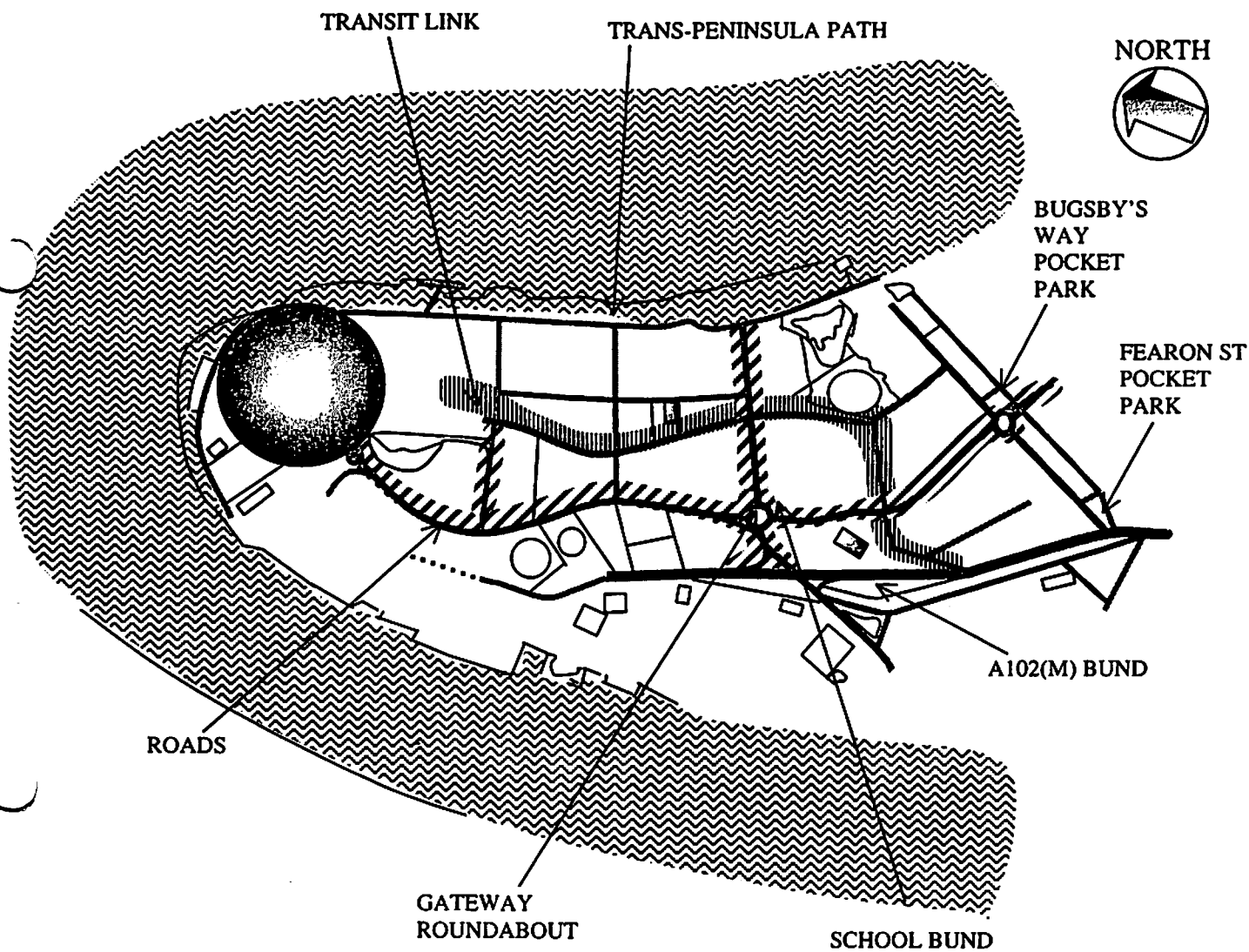
Map Coverage

See Appendix 1 for list of as-built plans that cover this area. Details of where these are located within the Management Library can be found in 'Section A of the Greenwich Peninsula Management Plan'.

Document and Photographic Library

See the relevant reference section in 'Section A of the Greenwich Peninsula Management Plan' for documents which relate to this area.

Figure 1.1 - Location of 'Other Areas' within the Greenwich Peninsula



Management Compartments

The areas covered in this component area plan can be split into the following management compartments but with common aims between them:

- Pocket Parks;
- Amenity planting (roads, roundabouts (as listed), footpath and School Bund); and
- Mass native tree and shrub planting (A102(M) bund and other A102(M) verge areas).

1.2 ENVIRONMENTAL INFORMATION

Physical

Climate

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'. Micro-climatically, the area is likely to change with both the maturation of the habitat and construction of surrounding built form.

Geology, Geomorphology and Hydrology.

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

Soils

Details of remediation works can be found in 'Section A of the Greenwich Peninsula Management Plan'.

All soils and substrates have been imported or manufactured on site. The topsoil specification used through out the site can be found in Appendix 2. This information is included as an initial guide to the general soil properties that can be found on the sites. Specification for specialist tree trench soil used for East and West Parkside street trees is also included for information.

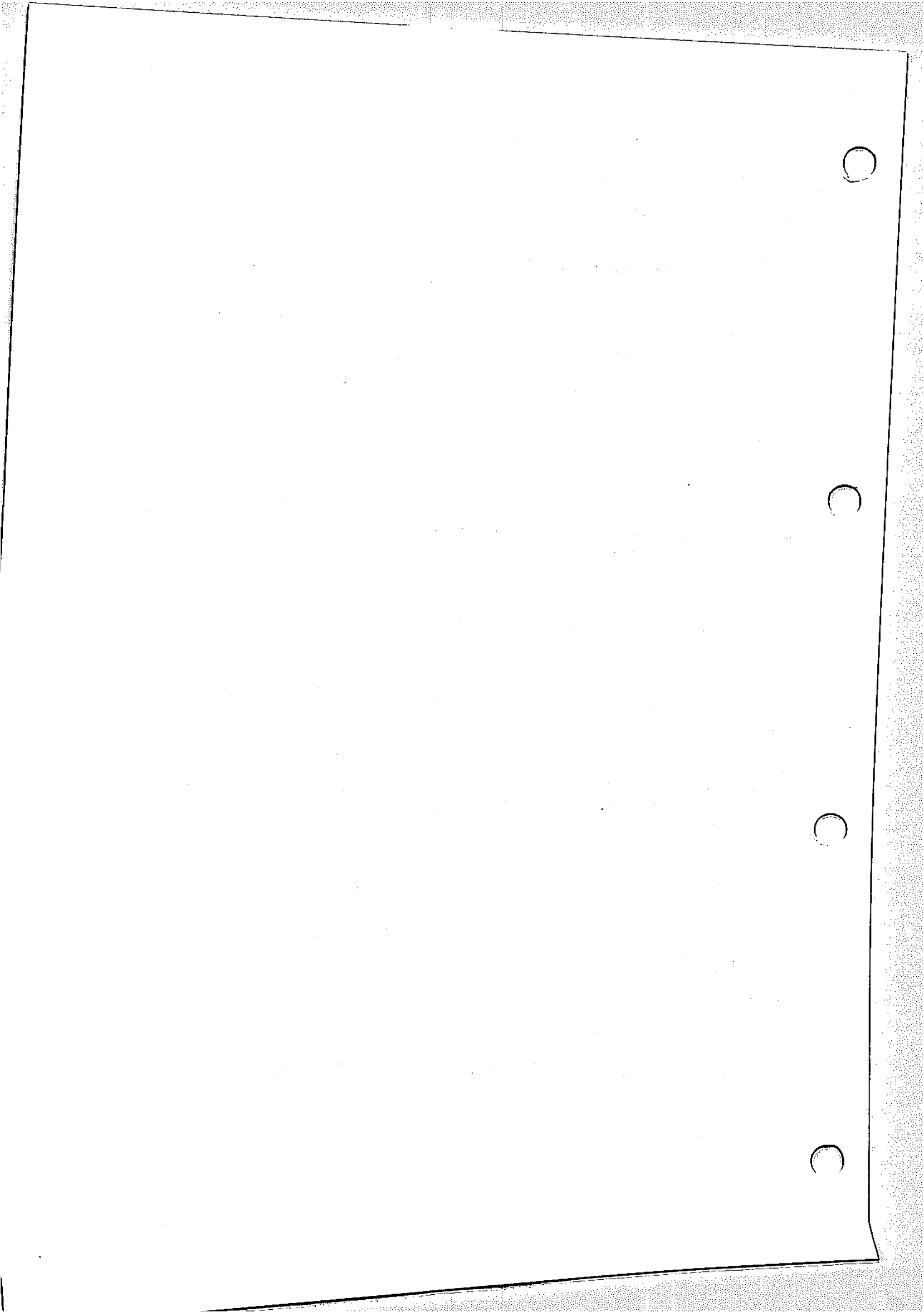
Topography

The various areas described in this component area management plan are located throughout the Greenwich Peninsula. Information on the site levels for each area can be found in the as-built drawings for the respective areas.

Human/Cultural

Archaeology/Past Land Use

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.



Present and Predicted Land Use Categories

The pocket parks are intended as publicly accessible space for passive and active use. The roads, roundabouts and footpath are part of the future transport infrastructure for the site. The A102(M) road bund area is designated as open space. The school and health centre become a part of the Millennium Village.

Landscape Design Context

Details can be found in 'Section A of the Greenwich Peninsula Management Plan' for the site wide and surrounding context. On a peninsula-wide scale:

A102(M) road planting - bund is located on the north bound side of the carriageway, separating housing along Tunnel Avenue from the A102(M). A footpath cuts through the bund, linking with the overbridge.

Fearon Street Pocket Park is located at the far south west corner of the peninsula, at the junction of Fearon Street and Pear Tree Way. This pocket park relates to the small scale residential housing to the south.

Bugsbys Way Pocket Park is located in the south east quadrant of the junction of Bugsbys Way and Pear Tree Way. To the south is the Bardon Cement Works.

Streetscope Areas, these include the infrastructure tree and shrub planting along the peninsula roads as well as roundabout planting. This sub area also includes the Trans-peninsula Path which runs east west across the peninsula linking Blackwall Lane to the Riverside Walkway.

School and Health Centre Bund is located on the south east quadrant of the Gateway Roundabout at the junction of Blackwall Lane, Bugsbys Way and John Harrison Way.

Details of Recreational Uses -

Details can be found in 'Section A of the Greenwich Peninsula Management Plan' for site wide uses. The uses of the areas covered by this component plan have been covered briefly in previous sections. The only facilities provided for recreational use are the seating and play equipment in Fearon Street Pocket Park.

Public/Organisational Interest and Involvement – Present and Predicted

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

Educational/Research/Interpretational Uses and Facilities

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'. Further details are as follows (*to be added as required*).

The native tree and shrub planting on the 'inside' school mound is intended to be of use to the school as an ecological resource.

Biological and Ecological

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

Evaluation Criteria and Overall Assessment

Details can be found in 'Section A of the Greenwich Peninsula Management Plan'.

1.3 LANDSCAPE DESIGN STRATEGY

Details of the peninsula-wide strategy can be found in 'Section A of the Greenwich Peninsula Management Plan'. The following are specific to the sites in question:

Fearon Street Pocket Park responded to the requirement of the local residents to provide:

- visual mitigation for the new Pear Tree Way by the use of a brick wall and planting;
- a mini 'square' useable public open space area with seating and hard paving contained by raised planters;
- a recreation area for children was also required and created by the installation of play equipment and a small grass area, and
- the growth of the tree and shrub planting in time to add to the spatial containment of the area and increase the visual mitigation for the local residents.

Bugsbys Way Pocket Park provides:

- an area for informal recreation with amenity tree and shrub planting with small areas of grass and wild flowers. Location of trees constrained by major services in the area; and
- the retention of existing trees adds considerably to the spatial containment that will increase with the growth of the planting.

Both of the above parks reinforce and integrate the green infrastructure and will benefit the visual impact of the scheme upon the views of occupiers and users of the scheme.

The A102(M) road planting scheme consists of:

- a 2.5m high mounded area, mass planted with native tree and shrub planting;
- a mixture of native tree and shrub planting with general amenity shrub planting to the new 'on' and 'off' slip roads;
- the growth of the planting will help to mitigate adverse effects (previously there was no mitigation) of the visual impact of the scheme upon the views of occupiers and users of the area;

- the planting should establish a mature setting as soon as possible in order to achieve appropriate screening; and
- it should also create in the longer term, a visually satisfying environment with the capacity and diversity to sustain local wildlife and flora and facilitate their transit between other green spaces on the peninsula.

Amenity planting to roads, consists of:

- trees, low shrub planting, bulbs and grass areas.

This planting will integrate the green infrastructure and will enhance the visual impact of the scheme upon the views of occupiers and users of the scheme.

- the planting contributes to give the Greenwich Peninsula 'streetscape' an appropriate quality feel; and
- tree planting designed to fit with pavement 'scape' eg to not overshadow lighting columns/grow into road/fit between service trenches.

The school mound with its planting is designed for screening and visual containment of the school and consists of:

- amenity tree and shrub planting on the 'outside' (road face) of the mound for screening of the school site and to contribute with the 'Gateway' roundabout planting and peninsula-wide 'streetscape'; and
- native tree and shrub planting on the 'inside' of the mound (school side) using woodland mixes for screening purposes and as an important wildlife habitat and as an educational resource to be maintained by the School.

Amenity planting to Trans-Peninsula Path, where it passes through future development plots either side of Central Park is designed to:

- where space available to screen the development plots giving visual containment to the path and add a human scale and visual interest to the users of the path by tree and shrub planting in a varying width bands along one or both sides to the path.

Figure 1.2 - Trans-peninsula Path - Typical Section

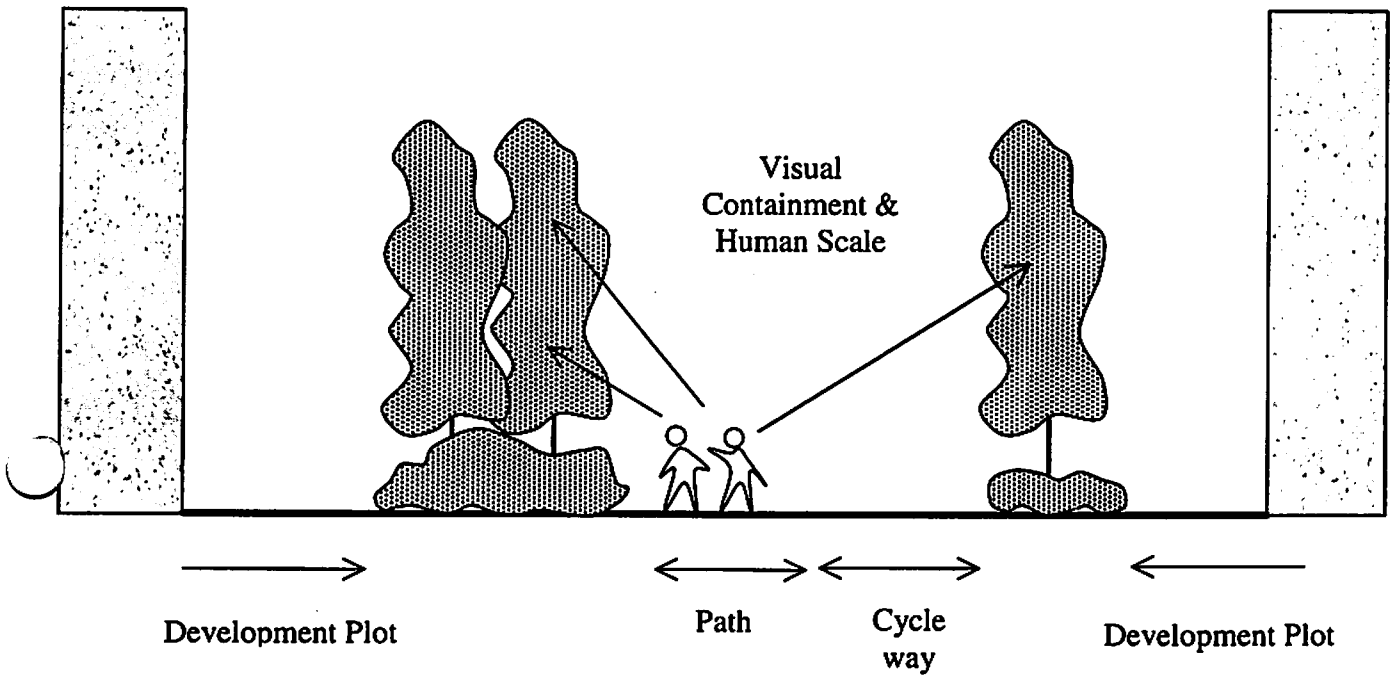
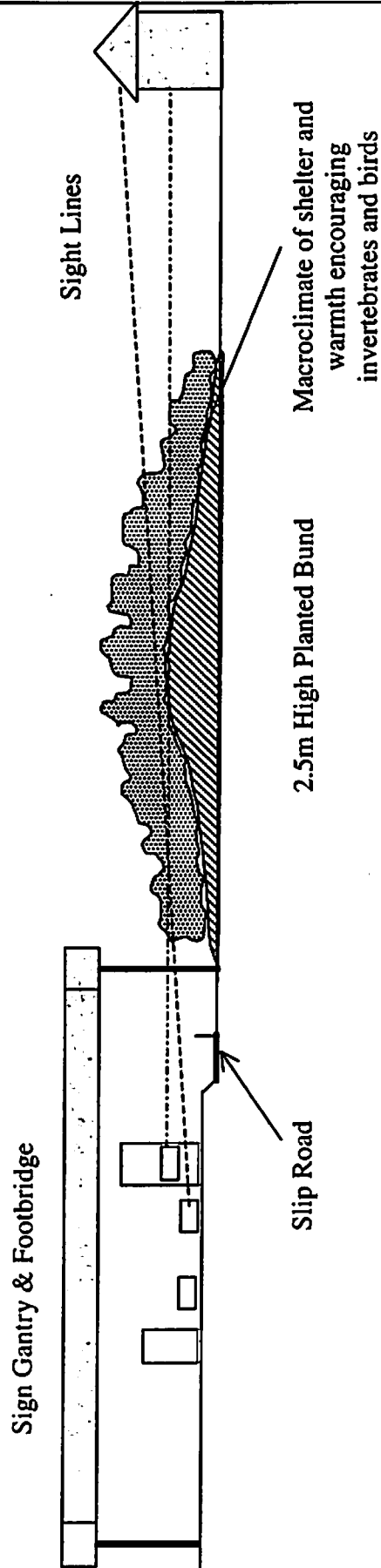


Figure 1.3 - A102(M) Bund



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PART 2 – EVALUATION & OBJECTIVES

2.1 SITE EVALUATION

Summary of Key Landscape Features and Elements

The elements in each area are listed together with a description and the importance of each element in relation to the overall design strategy in Tables 2.1 – 2.5.

Nature Conservation Evaluation of Site

Refer to 'Section A of the Greenwich Peninsula Management Plan' for peninsula-wide evaluation.

The Site Value in the Wider Perspective and Implications for Management

Refer to 'Section A of the Greenwich Peninsula Management Plan' for peninsula-wide evaluation.

The management compartments covered by this plan function as important visual and functional links between the other green space covered by the wider Management Plan. They form a very important part of the overall 'feel' of the Greenwich Peninsula's landscape as high quality, beneficial in terms of climatic and atmospheric amelioration and ecologically functional. In ecological terms the cumulative area of the compartments covered by the present component plan is significant in terms of direct habitat provision for a wide variety of native flora and fauna. The linear compartments (street planting and bunds) provide corridors for the movement of wildlife through the peninsula's landscape and beyond. Such corridors are essential to permit rapid recolonisation following incidences of local extinction and to maintain genetic interchange between populations of species in areas such as the Millennium Village Marsh and Meridian Gardens. Birds, bats, mammals and invertebrates have all been shown to disperse along such corridors; and in some cases to be deterred from movement by significant breaks in such corridors.

It is vital, given the high public profile of the peninsula's regeneration and the government's that it be an example of sustainability, that the landscape covered by the 'Other Areas' component plan be visibly well designed and maintained to perform the various functions listed above.

Key Environmental Relationships with Implications for Management

The environmental relationships between elements of the existing landscape that must be understood in order for appropriate management to be carried out are discussed here.

Table 2.1 – Summary and Evaluation of Landscape Features along A102(M)

Element	Evaluation
1. Massed tree and shrub planting on bund.	Screening element and landscape context to approach to footway/cycleway overbridge.
2. Incidental shrub planting to Corner of Tunnel Avenue, adjacent to off A102(M) off sliproad.	Screening to adjacent compound.

Table 2.2 – Summary and Evaluation of Landscape Features in Fearon Street Pocket Park

Element	Evaluation
1. Play equipment and surfacing.	Play area for local residents.
2. Screen brick wall.	Screen for residents, separating residential area from new road – Pear Tree Way and development on the Greenwich Peninsula.
3. Hard brick paving and raised planters.	Part of the design strategy for 'small scale' residential pocket park.
4. Amenity tree and shrub planting.	Part of the design strategy for 'small scale' residential pocket park.

Table 2.3 – Summary and Evaluation of Landscape Features in Bugsby Way Pocket Park

Element	Evaluation
1. Small scale grass area, including wildflower areas and tree and shrub planting.	Pocket Park associated with the infrastructure landscape. Provides a low key buffer between industrial area to the south and the development area to the north.
2. Existing London Plane trees.	Important visual feature within the infrastructure landscape.

Table 2.4 – Summary and Evaluation of Landscape Features in Streetscape Areas

Element	Evaluation
1. Roadside tree planting within grass verges or stabilised gravel tree corridors.	Part of the design strategy for the peninsula infrastructure.
2. Gateway Roundabout and verges; including trees groundcover planting and bulbs.	Part of the design strategy for the peninsula infrastructure main entrance to the peninsula.
3. Incidental grass and shrub planting along Blackwall Lane – including JLE Access Road – Ordnance Crescent interface with substation.	Screen for substation and part of the design for the peninsula infrastructure.
4. Amenity planting band opposite JLE Parking area.	Infrastructure planting, likely to be affected by adjacent development area.
5. Amenity planting band between temporary NMEC support areas.	Temporary feature.

Table 2.5 – Summary and Evaluation of Landscape Features on School Bund

Element	Evaluation
1. Amenity planting to outer face of the School Bund.	Part of the design strategy for infrastructure.

2.2 MANAGEMENT POLICY

Refer to 'Section A of the Greenwich Peninsula Management Plan' for Peninsula wide policy.

AIM: To maintain a simple and safe space for Amenity and Recreation value within the Pocket Parks. To mitigate adverse visual effects with the establishment of planting on the A102(M) bund. To contribute to the visual amenity by the creation of a 'green' infrastructure across the peninsula.

Table 2.6 – Ideal Management Objectives

NUMBER OF IDEAL OBJECTIVE	DESCRIPTION OF OBJECTIVE
<u>IDEAL OBJECTIVE 1:</u>	MAINTAIN ALL HARD LANDSCAPE ELEMENTS TO THEIR ORIGINAL DESIGN INTENTIONS AS SET OUT IN THE DETAILED DESIGN DRAWINGS.
<u>IDEAL OBJECTIVE 2:</u>	MAINTAIN ALL SOFT LANDSCAPE ELEMENTS.
<u>IDEAL OBJECTIVE 3:</u>	TO UNDERTAKE SURVEY MONITORING AND RESEARCH WITH THE KEEPING OF DETAILED ENVIRONMENTAL AND BIOLOGICAL RECORDS IN ORDER TO FACILITATE THE ACHIEVEMENT OF OTHER MANAGEMENT OBJECTIVES.
<u>IDEAL OBJECTIVE 4:</u>	IMPLEMENT AS FAR AS POSSIBLE MEASURES FOR ECOLOGICAL ENRICHMENT IN THE LONG TERM.

Table 2.7 – Ideal Management Objectives and Prescriptions

Objective Number	Operational Objective	Outline Prescription	Review Period
IDEAL OBJECTIVE 1:	MAINTAIN ALL HARD LANDSCAPE ELEMENTS TO THE ORIGINAL DESIGN INTENTIONS AS SET OUT IN THE DETAILED DESIGN DRAWINGS.		3 years
Operational Objective 1.1	Maintain to desired levels and to meet legal obligations.	1.1.1 Ensure that health and safety standards are maintained for all hard landscape elements eg surfacing, street furniture, lighting, walls. 1.1.2 Liaise with Rospa. 1.1.3 Maintain to the standard outlined in the Landscape Maintenance Specification for the original works.	
Operational Objective 1.2	Respond to development pressures.	1.2.1 Identify maintenance problems associated with on going development pressures and changes of use and implement re-mediation proposals in keeping with the original design intent.	
IDEAL OBJECTIVE 2:	MAINTAIN ALL SOFT LANDSCAPE ELEMENTS.		1 year
Operational Objective 2.1	Maintain to desired levels.	2.1.1 Maintain to the standard outlined in the Landscape Maintenance Specification for the original works. 2.1.2 Ensure that establishment meets design intentions. 2.1.3 Maintain to appropriate health and safety standards for all soft landscape elements eg trees, shrubs, grass and wildflowers.	
Operational Objective 2.2	Review performance against specifications.	2.3.1 Review use of materials such as effectiveness of bark mulch. Consider alternatives to reflect different levels of establishment.	

Objective Number	Operational Objective	Outline Prescription	Review Period
<u>IDEAL OBJECTIVE 3:</u>	TO UNDERTAKE SURVEY MONITORING AND RESEARCH WITH THE KEEPING OF DETAILED ENVIRONMENTAL AND BIOLOGICAL RECORDS IN ORDER TO FACILITATE THE ACHIEVEMENT OF OTHER MANAGEMENT OBJECTIVES.		
Operational Objective 3.1	To carefully address concerns raised by CAA regarding bird - strike risk.	See Peninsula-wide Plan	
Operational Objective 3.2	To monitor other native species of flora and fauna.	3.2.1 Every three years undertake botanical survey of the compartments. 3.2.2 Every five years undertake invertebrate survey of all compartments.	3 year
<u>IDEAL OBJECTIVE 4:</u>	IMPLEMENT AS FAR AS POSSIBLE VARIOUS METHODS OF ECOLOGICAL ENRICHMENT IN THE LONG TERM.		
Operational Objective 4.1	Where compatible with other aims, seek to in all areas.		
Operational Objective 4.2	Assess different mowing regimes in Bugsby Way Pocket Park and JLE Access Road Substation.		

PART 3 – ACTION PLAN

Introduction

In this section, all prescriptions are brought together by the landscape manager as logical tasks organised by season and year. From this table it is possible to estimate the manpower requirements and costs of management.

To be completed in consultation with the Facilities Management Company.

PART 4 – PROJECT RECORDS AND REVIEW

Introduction

In this section, monthly maintenance reports and reviews are to be filed.

APPENDIX 1

As-Built Drawings List Covering the Areas

1. AS-BUILT DRAWING LIST COVERING THE AREAS

Table 1.1 – Map Coverage

Name of Plan	Plan Reference Number	Management Library Reference
Infrastructure Planting 1-2	AC1787/PLD/8772-8773	
Gateway Junction Planting Plan	AC1787/PLD/8781	
A102(M) Bund Planting Proposals	AC1787/PLD/8782	
JLE Access Road – Location Reference Plan and Schedule of Activities	AC1787/PLD/8796	
JLE Access Road – Ordnance Crescent Interface Substation – Landscape Plan	AC1787/PLD/8797	
Millennium Village School Planting Proposals	AC1787/PLD/3101	
Turf to Mudlarks Boulevard	AC1787/C8-6/SK09	
Secondary Irrigation Layout	BOIL No. 2093-1	

APPENDIX 2

Typical Soils

2. TYPICAL SOILS

2.1 The following extracts are taken from the original specification for the works.

Range of Acceptable Levels for Topsoil and Subsoil:

- An indication of the range of acceptable values is shown in the table below:

	TOPSOIL TYPE 1	
	General Purpose Topsoil – Imported	Subsoil
Source (location to be identified for inspection)	Natural or soil substitute	Natural or soil substitute
Soil texture (excluding stone content) of mineral fraction Sand 0.05-2.00mm Silt 0.002-0.05mm Clay (less than 0.002mm)	Medium, friable, and showing a degree of porosity Sand 20-60% Silt 10-60% Clay 10-20% Total 100%	30% coarse structured clay and mineral material Sand 40-80% Silt not more than 10% Clay 5-25% Total 100% (Note 1)
Maximum stone content % Max. stone size >2 mm >20 mm >50 mm >100 mm	(2-50mm) 30% by dry weight 60 30 10 0	(2-50mm) min 30% by dry weight 60 40 20 0
pH value	6.5 – 7.5	6 - 8
Nutrient content P (mg/kg) K (mg/kg) Mg (mg/kg) N % (m/m)min	> 45 ppm > 240 ppm > 80 ppm not less than 2%	N/A N/A N/A N/A
Calcium carbonate	Less than 15%	Less than 15%
Organic matter %	Not less than 4%	< 2%
Maximum electrical conductivity MS/cm	1500	1500
Bulk density g/cm ³	less than 1.5	less than 1.5
Minimum hydraulic conductivity mm/hr at 40 cm tension (3ft lbs/m ² compaction)	15-20	40-45
Note 1: Subsoil shall not contain anything deleterious to plant life, or contain more than 2% concrete. It shall be sufficiently porous to enable the free percolation of water to the drainage system. Permissible extraneous material may include brick, rubble, granite, cobble and flint.		

Metro Tree Sand/Urban Tree Soil/Amsterdam Tree Soil:

- To be used in tree trenches, where trees are to be planted in hard landscape areas.
- Tree soil is to be a blend of highly graded sand and organic material that can be compacted sufficiently to control settlement for laying pavements and hard landscape materials, yet still function as a healthy medium for promoting growth.
- Tree soil is to be used in a continuous trench, approximately 900 mm deep, and with a 300 mm drainage layer. The trench must be backfilled in 3 layers, and compacted to 1.5-2.0 mega pascels with a Wacker Rammer BS 60Y (Jumping Jack/Elephant's Foot) and then checked with a penetrometer.
- If it is not possible to lay the tree soil immediately upon delivery, then it should be protected by a tarpaulin.
- The tree soil must not be contaminated by any foreign matter, or building material.
- The tree trench must have no standing water at the time of backfilling.
- Layering: approximately 100 mm is lost on compaction, therefore the soil is to be put in loose, to 400 mm, and levelled before compaction will lead to surface settlement.
- Drainage Layer: Approx. 300 mm clean stone. 1 pass with BS 60Y.
- 1st & 2nd Layers: 1 pass over surface area, with BS 60Y.
- 3rd Final Layer: 2 passes over surface area with BS 60Y.
- Once the final tree soil has been correctly installed, it should not be driven over by site machinery, etc., before the final surfacing/paving is applied.
- Refer to Drawing Number AC1787/PLD/8255, for further details.
- Insert an approved post planting fertiliser tablet into the topsoil of each planting pit. Suggested Supplier: Sierrablen Flora Tablet – Tel: 01159 455100.
- Sizes to be: Advanced Nursery Stock (A&B): 165 grams, Semi-Mature Trees (C&D): 200 grams, in tablet form.