

London Gateway Logistics Park Local Development Order 2

Local Development Order 2 (2025)



January 2025

LONDON GATEWAY LOGISTICS PARK LOCAL DEVELOPMENT ORDER 2 (LDO2 (2025))

This Order is adopted by Thurrock Council ("the Council") under the powers conferred on the Council as local planning authority by sections 61A-61D of and Schedule 4A to the Town and Country Planning Act 1990 (as amended) ("the Act") and pursuant to the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) and shall be known as the London Gateway Logistics Park Local Development Order 2 (2025).

1. In this Order:
 - 1.1 definitions in the Town and Country Planning (Use Classes) Order 1987 (as amended) apply to the interpretation of this Order and references in this Order to a "Use Class" are accordingly a reference to the relevant Use Class set out in the Town and Country Planning (Use Classes) Order 1987 (as amended); and
 - 1.2 terms defined in Schedule 3 have the meaning given to them there.
2. Planning permission is hereby granted for the development within the Logistics Park Area set out in all Parts of Schedule 1 subject in each case to the restrictions and conditions set out in the relevant Part of Schedule 1.
3. The grant of permission under any Part of Schedule 1 is subject to the general conditions set out in Schedule 2.
4. All development permitted by this Order may be undertaken on a phased basis.
5. Where any development permitted by this Order has been lawfully implemented before this Order expires, is revoked or revised that said development may be lawfully completed.
6. Any material amendments to development already approved under LDO1 (2013) or LDQ1.5 (2024) which are henceforth submitted to the Council for its approval shall comply with this Order.
7. This Order comes into force on the date on which it is made and, subject to the Council's power to revoke this Order under s.61A(6) of the Act or to revise this Order under Schedule 4A of the Act shall remain in force for a period of 10 year from that date, expiring on the tenth anniversary thereof.

Adopted by the Council on [16 January 2025]

By Order of the Council the Common Seal

was officially brought in the presence of

Authorised Signatory



SCHEDULE 1 – PERMITTED DEVELOPMENT

PART 1 - ERECTION OF BUILDINGS OR OUTDOOR SPORTS FACILITY

Permitted Development

Development consisting of –

- (a) the erection, extension or alteration of a building within Use Class B8 (storage or distribution);
- (b) the erection, extension or alteration of a building within Use Class B2 (general industry), E(g)(ii) (research and development) or E(g)(iii) (industrial processes);
- (c) the erection, extension or alteration of a building within Use Class, E(g)(i) (offices);
- (d) the erection, extension or alteration of a building within Use Classes E(b) (food and drink), E(d) (gym) or E(f) (creche/day nursery);
- (e) the erection, extension or alteration of a building within Use Class F2(a) (shops) where the shops premises do not exceed 280sq.m and there is no other such facility offering the same or similar range of goods and/or services within 1km; and
- (f) the replacement of any building following structural damage where there would be no increase in floorspace.
- (g) The erection of an outdoor sports facility within Use Class F2(c) and ancillary facilities (e.g. storage, changing facilities etc.)

Development not permitted

Development is not permitted by Part 1 if, in combination with development implemented pursuant to LDO1 (2013), LDO1.5 (2024) and any full, outline or permission in principle planning consent for development within the uses classes specified below within the Logistics Park Area:

- (a) that development would result in the total amount of floorspace in Use Class B8 within the Logistics Park Area exceeding 686,764 sq.m;
- (b) that development would result in the total amount of floorspace in Use Classes B2, E(g)(ii) and E(g)(iii) within the Logistics Park Area exceeding 29,832 sq.m;
- (c) that development would result in the total amount of floorspace in Use Class E(g)(i) within the Logistics Park Area exceeding 11,680sq.m;
- (d) that development would result in the total amount of floorspace in use class E(b) within the Logistics Park Area exceeding 1,500sqm;
- (e) that development would result in the total amount of floorspace in use class E(d) within the Logistics Park Area exceeding 1,000sqm; or
- (f) that development would result in the total amount of floorspace in use class E(f) within the Logistics Park Area exceeding 1,500sqm

- (g) that development would result in the total amount of floorspace in use class F2(a) within the Logistics Park Area exceeding 1,500sqm;
- (h) that development would result in the area for outdoor sports facilities in use class F2(c) within the Logistics Park Area exceeding 3,500sqm;

Conditions

Development is permitted by Part 1 subject to the following conditions –

1. any building used for ancillary uses including for the provision of Employee Facilities may be used only for the purposes of undertakings operating within the Logistics Park Area;
2. the total amount of ancillary floorspace shall not exceed 25% of the overall building floorspace and any ancillary F2(a) use within an overall building shall not exceed 280sq.m or 25% of the floorspace whichever is the lesser;
3. no manufacturing, fabrication or other industrial process shall take place outside the confines of any buildings;
4. no alcohol for consumption on the premises may be sold from food and drink outlets within Use Class E(b);
5. the use of the creche/day nursery is limited to the children / dependents of persons employed at London Gateway Logistics Park or Port; the use of the gym is limited to persons employed at London Gateway Logistics Park or Port;
6. between 0700 and 1900 hours the outdoor sports facility / facilities are limited to persons employed at London Gateway Logistics Park or Port (and/or their dependents) outside those hours it may be used by anyone;
7. other than where it is an ancillary use, development within Use Classes E(b) (food and drink), E(d) (gym), E(f) (creche/day nursery) or F2(a) (shop) shall not be accommodated within a building where the primary use is within Use Class B2 or B8;
8. prior to the occupation of built development on the relevant plot the infrastructure works identified in the London Gateway LDO Design Code must be practically completed for that plot;
9. the commencement of any development permitted under this Part must not prejudice the completion of the remainder of the development permitted under this Order.

PART 2 – CHANGE OF USE

Permitted Development

Development consisting of a change of use of any building between the use classes set out within Part 1 of this schedule

Development not permitted

Development is not permitted by Part 2 if, in combination with development implemented pursuant to LDO1 (2013), LDO1.5 (2024) and any full, outline or permission in principle planning consent for development within the uses classes specified below within the Logistics Park Area:–

- (a) the change of use would result in the total amount of floorspace in Use Class B8 within the Logistics Park Area exceeding 686,764 sq.m;
- (b) the change of use would result in the total amount of floorspace in Use Class B2, E(g)(ii) and E(g)(iii) within the Logistics Park Area exceeding 29,832 sq.m;
- (c) the change of use would result in the total amount of floorspace in Use Class, E(g)(i) within the Logistics Park Area exceeding 11,680 sq.m;
- (d) that development would result in the total amount of floorspace in Use Class E(b) within the Logistics Park Area exceeding 1,500 sq.m;
- (e) that development would result in the total amount of floorspace in Use Class E(d) within the Logistics Park Area exceeding 1,000 sq.m; or
- (f) that development would result in the total amount of floorspace in Use Class E(f) within the Logistics Park Area exceeding 1,500 sq.m
- (g) that development would result in the total amount of floorspace in Use Class F2(a) within the Logistics Park Area exceeding 1,500 sq.m; or
- (h) that development would result in the total area in use class F2(c) within the Logistics Park Area exceeding 3,500 sq.m.

Conditions

Development is permitted by Part 2 subject to the conditions that –

1. the total amount of ancillary floorspace shall not exceed 25% of the overall building floorspace and any ancillary F2(a) use within the overall building shall not exceed 280sq.m or 25% of the floorspace whichever is the lesser.
2. change of use to or from development within Use Class B2 or B8 to Use Class E(b), E(d), E(f) or F2(a) is not permitted.

PART 3 – ASSOCIATED INFRASTRUCTURE

Permitted Development

Development consisting of –

- (a) the construction, extension, demolition or alteration of roads;
- (b) the construction, extension, demolition or alteration of areas and facilities for vehicle parking and servicing as well as for public transport operation, such as bus stops;
- (c) hard and soft landscaping, including the erection, extension, demolition or alteration of fences, gates, walls, securing barriers, security gatehouses and street lighting;
- (d) the construction, extension, demolition or alteration of foul and surface water drainage infrastructure including sewage treatment works, pumps, tanks, conduits, swales, pipes, drains, ditches, channels and ponds;
- (e) the construction, extension, demolition or alteration of vehicle refuelling (including EV charging) and washing facilities;
- (f) the construction, extension, demolition or alteration of utilities infrastructure (telecommunications, radio, gas, electricity, water) including any sub-stations or pumping stations;
- (g) the erection, extension, demolition or alteration of CCTV cameras and associated masts; and
- (h) the erection, extension, demolition or alteration of lamp posts and any other lighting masts or infrastructure.

Development not permitted

Development is not permitted by Part 3 if –

- (a) it is not primarily required to serve the development permitted by Parts 1 or 2; and
- (b) in the case of development in paragraphs (f) only, it is not primarily required to serve the development permitted by Parts 1 or 2 or to serve London Gateway Port; and
- (c) that development would result in the total area for HGV fuelling and washing (sui generis) within the Logistics Park Area exceeding 4,468sqm (excluding ancillary refuelling facilities on plot).

Conditions

Development is permitted by Part 3 subject to the condition that –

1. prior to the bringing into beneficial use of any permanent roads, vehicle parking or vehicle servicing areas the drainage works identified in the London Gateway LDO2 Design Code must be implemented for the relevant phase.

PART 4 – SITE PREPARATION WORKS

Permitted Development

Development consisting of:

- (a) any operations or engineering necessary for the remediation of land within the Logistics Park Area, including excavation and the construction, extension, demolition or alteration of remediation compounds for the stockpiling, sorting and treatment of excavated materials; or
- (b) any operations or engineering necessary to clear, stabilise or raise the level of any land within the Logistics Park Area.

SCHEDULE 2 – GENERAL CONDITIONS

All development permitted by the Order is subject to the following conditions –

- 1. Nothing in this Order permits any development that is EIA development within Schedule 1 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 2. Prior to the commencement of any development permitted under this Order, other than a Non-Material Amendment or Minor Material Amendment, details and plans of the proposed development shall be submitted to the local planning authority using the Prior Notification Form together with the appropriate fee as set out below:

Prior Notification Fee Scale		
	Building GIA / (site area for proposals within Use Class F2(c))	Site Infrastructure
Band 1: 0 – 24,999sq.m	£5,870	£1,760
Band 2: 25,000sq.m – 49,999sq.m	£7,770	£2,480
Band 3: 50,000sq.m – 74,999sq.m	£9,680	£2,900
Band 4: 75,000sq.m. – 99,999sq.m	£11,730	£3,520
Band 5: 100,000sq.m +	£13,640	£4,090
<i>NB: Fees will increase annually on 1st April in line with the percentage increase in the Consumer Price Index in the preceding 12 month period.</i>		

- 3. Details and plans of any Non-Material Amendment or Minor Material Amendment shall be submitted to the local planning authority using the Non-Material and Minor Material Amendment Notification Form together with the appropriate fee as set out below:

Non-Material and Minor Material Amendments Fee
Non-Material and Minor Material Amendments Fee = £735
<i>NB: Fees will increase annually on 1st April in line with the percentage increase in the Consumer Price Index in the preceding 12 month period.</i>

- 4. No development permitted by this Order may commence prior to the Confirmation Date for that development.
- 5. Details and plans of any Non-Material and Minor Material Amendments to development previously confirmed as falling within the scope of this Order, LDO1 (2013) or LDO1.5 (2024) or approved through a planning application under the Town and Country Planning Act, must be submitted with the appropriate fee to the local planning authority using the

Non-Material and/or Minor Material Amendment Notification Form. This provision applies to development to be carried out and that which has already been carried out.

6. Development which is permitted by this Order must be Implemented within three years of the Confirmation Date for that development and may be completed thereafter, whether or not following its implementation, this Order should expire, or otherwise be revoked or revised.
7. Prior to the commencement of any phase of development in the Logistics Park Area approved under Parts 1, 2 or 3 of this Order, any contaminated land in the area of that phase shall be remediated under Part 4 in accordance with the London Gateway LDO2 Code of Construction Practice;
8. No development may take place under this Order except in accordance with:
 - (a) the London Gateway LDO2 Design Code;
 - (b) the London Gateway LDO2 Code of Construction Practice; and
 - (c) the London Gateway LDO2 Ecological Management and Mitigation Plan.
9. All operational vehicular traffic shall use the London Gateway Access Road and no other means of vehicular access to the Logistics Park Area shall be made available for this purpose other than additional or alternative provision for access by emergency vehicles or buses or if the emergency services or organisation responsible for the management of the Logistics Park direct that Gates 1, 2 or 3 should be opened for operational traffic during emergency scenarios.
10. No more than 55,000sqm of floorspace permitted within the Logistics Park Area shall be occupied as a High Intensity Parcel Delivery Service.
11. On any particular plot or infrastructure corridors, landscaping on or along that plot or corridor shall be completed in the first planting season following the first operational use of that plot or corridor.

SCHEDULE 3 – INTERPRETATION

1. Terms used in this Order have the following meanings:

LDO1 (2013)	means the London Gateway Logistics Park Local Development Order 2013;
LDO1.5 (2024)	means the London Gateway Logistics Park Local Development Order 1.5 2024;
alteration	includes the construction of any mezzanine floor;
ancillary floorspace	any floorspace within buildings in use classes E(g)(i), E(b), E(d), E(f) and F2(a) that is an ancillary use to the main use of those buildings or on the same plot and not occupied separately;
ancillary use	use of land or buildings directly related to, subservient to, and supporting the primary use of the property;
Building	excludes structures housing plant or machinery such as pumping stations, kiosks and tanks;
Confirmation Date	means the date on which the local planning authority has confirmed that the proposed development falls within the scope of this Order or, failing the issue of such a confirmation or refusal by the local planning authority, the day after 28 days from the submission of the Prior Notification Form or Non-Material or Minor Material Amendment Form as applicable;
the Employee Facilities	means social, care or recreational facilities provided for employees of undertakings within the Logistics Park Area, including crèche facilities provided for the children of such employees;
High Intensity Parcel Delivery Service	means that the primary activity of the business is the storage, packaging and delivery of parcels to residential and business users for and on behalf of multiple independent sellers as distinct from a distribution centre whether the packaging and distribution is consequential to the retail sale of their own goods or goods for which they have a franchise
Implemented	means the carrying out of a material operation as defined in Section 56(4) of the Act but excluding site clearance, demolition of or within existing buildings, the removal, diversion or installation of any pipeline, associated structure or associated facilities, archaeological investigation, investigation for the purposes of assessing ground conditions, works to existing roads including the provision of haul roads and temporary routes within the site, the diversion creation or modification of public rights of way (if any), and the erection of means of enclosure for the purpose of site security;
Minor Material Amendment	means minor material changes to development previously approved under LDO1 (2013), LDO1.5 (2024) this Order or any other planning permission relating to the Logistics Park Area.

Non-Material Amendment	means a changes to development previously approved under LDO1 (2013), LDO1.5 (2024), this Order or any other planning permission relating to the Logistics Park Area that does not materially affect that development
the Logistics Park Area	means the area shown on the Plan as within the LDO2 (2025) Boundary;
the London Gateway LDO2 Code of Construction Practice	means the London Gateway Logistics Park Local Development Order 2 Code Of Construction Practice attached to this Order as Appendix 2 ;
the London Gateway LDO2 Design Code	means the London Gateway Logistics Park Local Development Order 2 Design Code attached to this Order as Appendix 3 ;
the London Gateway LDO2 Ecological Mitigation and Management Plan	means the London Gateway Logistics Park Local Development Order 2 Ecological Mitigation and Management Plan attached to this Order as Appendix 4 ;
London Gateway Port	means the port development permitted by the London Gateway Port Harbour Empowerment Order 2008 (S.I.2008/1261) and includes the port development as it may be differently permitted from time to time;
the London Gateway Access Road	means the road constructed to provide access to the Logistics Park Area and London Gateway Port as permitted by planning permissions with numbers 15/00111/FUL granted in May 2015 (or any future consent for that access road in predominantly the same form);
the Non-Material and Minor Material Amendment Notification Form	means the form at Appendix 6 .
the Plan	means the Plan attached to this Order at Appendix 1 , defining the LDO2 (2025) area;
the Prior Notification Form	means the forms at Appendix 5 .
Regularisation Date	means the date on which the local planning authority has confirmed that the development that has previously been carried out falls within the scope of this Order or, failing such a confirmation or refusal by the local planning authority, the day after 28 days from the submission of the Non-Material or Minor Material Amendment Form.

2. In this Order any reference to 'floorspace' means gross internal floorspace unless otherwise stated. 'Gross Internal Floorspace' is equivalent to 'Gross Internal Area' as calculated in

accordance with the *RICS Code of Measuring Practice* (sixth edition). Mezzanine floors shall contribute towards overall Gross Internal Floorspace for the purposes of this Order unless they are solely to provide for safe and efficient access to stacked or stored goods.

3. In this Order, ancillary floorspace shall be classified as falling within the main use of that building i.e. B2, B8, E(g)(ii) or E(g)(iii) and will not contribute to any limits on the total E(g)(i), E(b), E(d), E(f) and F2(a) floorspace set out in this Order.

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

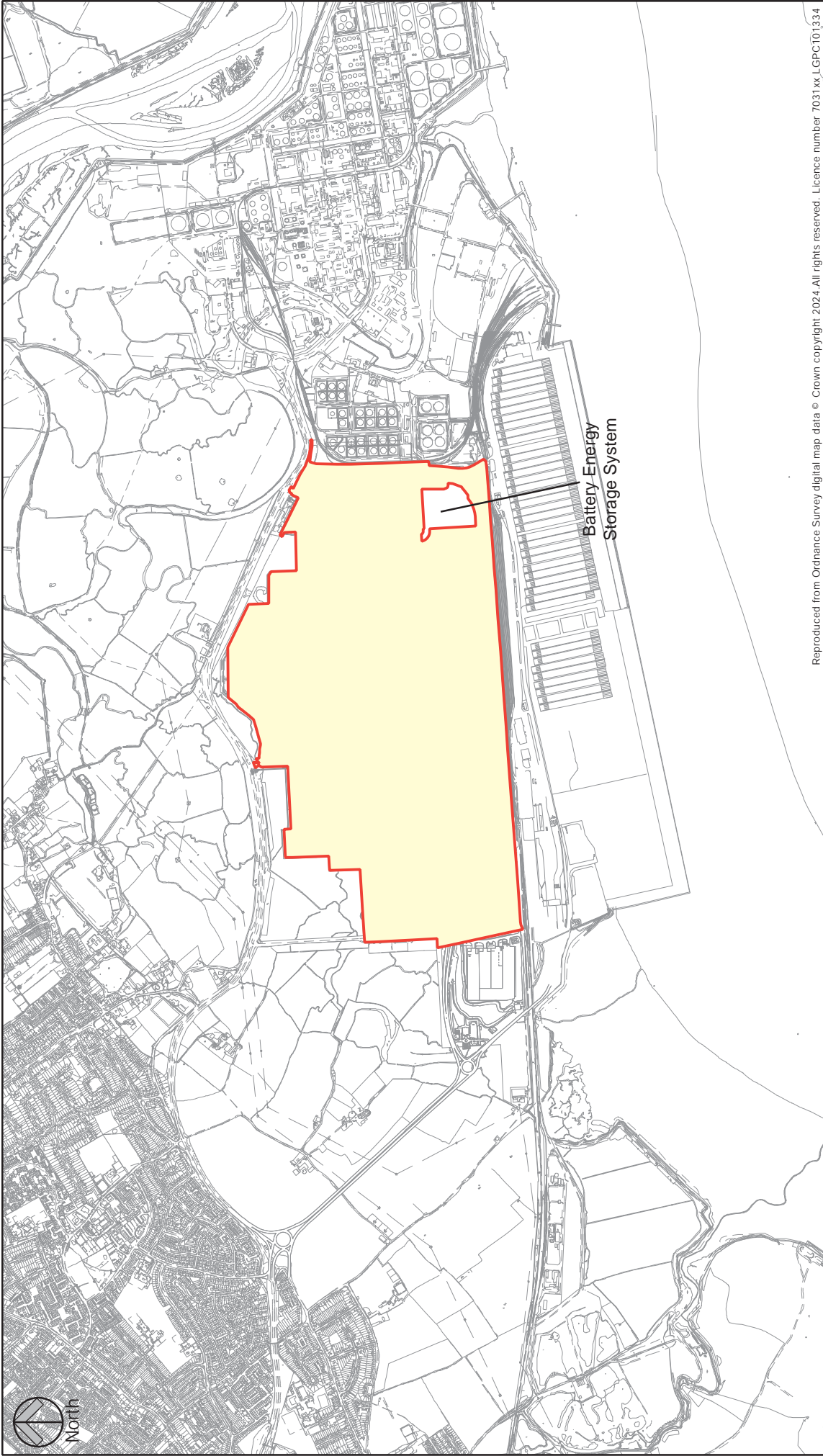
 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 1: Local Development Order Boundary

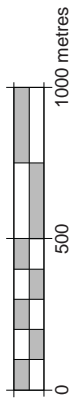


January 2025



Reproduced from Ordnance Survey digital map data © Crown copyright. 2024 All rights reserved. Licence number 7031xx, LGPC101334

Scale 1: 25 000 @ A4



Proposed LDO Boundary

 Proposed LDO Boundary



Adams Hendry
 Sheridan House, 40-43 Jewry Street, SO23 8RY
 T 01962 877414 www.adamshendry.co.uk

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 2: Code of Construction Practice



January 2025

London Gateway Park Local Development Order 2

Code of Construction Practice

Contents	Page
Introduction	3
Content of this document	3
Phasing	4
Part 1: Site Preparation and Construction Standards	6
A Traffic Management	6
A1 Site Access	6
A2 Routing of Construction Traffic and Lorries	6
A3 Emergency Access Strategy	8
A4 Abnormal Loads	8
A5 Sustainable Transportation	8
B Construction Compounds	9
B1 Construction Compounds	9
B2 Access	10
B3 Delivery and Storage of Materials	10
B4 Parking of Construction Related Vehicles	10
B5 Wheel Washes	11
B6 Hours of Working	11
C Site Remediation Works	12
C1 Site Investigation, Contaminated Soil Excavation and Backfilling Works	12
C2 Operation of Remediation Compound	18
C3 Remediation Processes	19
D Groundworks	20
D1 Bulk Upfilling	20
D2 Imported Material	22
D3 Suitable End Uses for Material	23
D4 Undiscovered Contaminated Soil and Groundwater Watching Brief	23
D5 Earthworks Procedure	23
D6 Geophysical Survey and Removal of Obstructions	24
D7 Piling Procedure	24
D8 Stripping and Storage of Topsoil and Sub Soil	25
D9 Final Ground Levels and Conditions	26
D10 Services Infrastructure	26
E Waste Material Management	26
E1 Waste Streams and Segregation	28
E2 Preventing Escape of Waste	29
E3 Transfer to an Authorised Person	29
E4 Off Site Waste Disposal or Treatment	29
E5 Record Keeping	29
E6 Managing Hazardous Waste	29

Part 2: Environmental Control Measures / Procedures	31
F Habitats and Protected Species	31
F1 Adder, Common Lizard, Slow Worm, Grass Snake	31
F2 Great Crested Newt	31
F3 Bats	33
F4 [REDACTED]	33
F5 Water Vole	33
F6 Brown Hares	33
F7 Breeding Birds	33
F8 Wintering Birds	34
F9 Plant Species	35
G Water Quality	35
G1 General Construction Control Measures	36
G2 Disposing of Wastewater from site	37
G3 Water Quality Monitoring	37
G4 Drainage Pollution Control Measures	38
G5 Water Demand Management Measures	38
H Dust	39
H1 Haulage Routes	39
H2 Demolition	39
H3 Plant	40
H4 Earthworks & Excavations	40
H5 Materials Handling & Storage	40
H6 Concrete Batching & Pouring	40
H7 Cutting/Grinding/Grouting/Packing	41
H8 Hot Bitumen Processes	41
H9 Damping Techniques	41
H10 Preventing Emissions and Odours	41
I Noise and Vibration	42
I1 Noise Control Measures	42
I2 Monitoring	43
J Archaeology	43
K Landscape and Visual Characteristics	46

Appendices

Appendix 1: Tier 1 – DP World London Gateway Logistics Park Incident Management Plan

Introduction

1. The London Gateway Logistics Park Code of Construction Practice (CoCP) forms part of the London Gateway Local Development Order 2 (LDO2) and must be read in conjunction with it.
2. This document provides a framework for compliance for all site preparation and construction works and applies to all parties involved in the construction of development permitted under LDO2. It establishes site-wide codes of practice and protocols, detailed work methodologies and provides a framework for the management of environmental impacts including specific control measures for managing noise, and impacts upon air quality, water resources, ecology and archaeology. All site works shall be undertaken in accordance with the EA's published guidance or relevant CIRIA construction guidance. The CoCP does not avoid the need to obtain the necessary environmental permits, licences and regulatory notifications.
3. **Development must comply with all aspects of this CoCP in order to benefit from the permitted development rights conferred by LDO2.**
4. Where there is a specific requirement for monitoring set out in this CoCP, records shall be made available for inspection by the Environmental Advisory Group (EAG) at any time.
5. The monitoring regime proposed by the developer to meet these requirements is to be made available in the form of a scheme Construction Environmental Management Plan (CEMP) to the EAG for information and subsequent records are to be reported to the EAG at intervals to be agreed.
6. The EAG will advise the developer if it considers that action needs to be taken in relation to the monitoring results to comply with the CoCP. Appropriate remedial action shall be taken by the developer in a reasonable and timely manner in response to this advice.
7. A DP World London Gateway Logistics Park Incident Management Plan is included as Appendix 1 to this document and will be updated as necessary throughout the duration of the LDO2. The protocols established in the Emergency Plan must be complied with by all parties.
8. Where herein reference is made to adopted guidance, standards or codes, any such updates to that guidance, standard or code shall apply.

Content of this Document

9. The CoCP comprises two parts.
10. **Part One** sets out specific **site preparation and construction standards** that shall be followed at all times during the construction period. Matters for control are set out in the following sections.

Section A: Traffic management (on site and off-site)

Section B: Construction Compounds

Section C: Site Remediation Works

Section D: Groundworks

Section E: Waste Material Management.

11. **Part Two** sets out the **environmental control measures and procedures** that shall be followed to minimise the environmental impact of construction works.

12. All construction works shall follow best practice as set by the relevant CIRIA construction guidance. The environmental issues for control are set out in the following sections.

Section F:	Habitats and Protected Species
Section G:	Water Quality
Section H:	Dust
Section I:	Noise and Vibration
Section J:	Archaeology
Section K:	Landscape and Visual Characteristics

Phasing

13. The rate of development of the logistics park shall be subject to market demand but shall proceed in a controlled and co-ordinated manner. Suitable plots to meet commercial requirements shall be released in a way that does not compromise the delivery of the overall development and enables the necessary supporting infrastructure to be bought forward in a timely manner.

14. Once a plot has been identified for development, the following general sequence of preparatory ground works shall be undertaken:

- a) The plot shall be cleared of vegetation and levelled. If protected species are detected during works, all works shall stop and the procedures set out in Section F of the CoCP shall be followed. Procedures set out in Section J shall also be followed to protect archaeological resources.
- b) A geophysical survey shall be undertaken to identify obstructions requiring removal.
- c) The plot shall be accurately set out and underground services shall be identified.
- d) Temporary ditches shall be cut to drain the plot area and the ground shall be graded to fall towards the ditches.
- e) Trial pits shall be dug across the plot area and samples taken and tested for contaminants in line with the requirements set out in Section C of the CoCP.
- f) Trial pit logs shall be analysed and areas of contamination delineated with all materials deemed to be contaminated sent to the on-site remediation compound for treatment.
- g) Major obstructions and pipelines shall be removed. All steel shall be recycled and concrete obstructions crushed to provide road base materials, capping and Type 1 Sub-base.
- h) Suitable material shall either be imported or sourced from the dredged granular material for the plot fill. All source material shall be tested and approved in line with the Environmental Permit held for the site prior to its use.
- i) Each plot shall be shaped and contoured to allow water to drain from the area and to drain to the temporary ditches.
- j) Existing internal access roads shall be used to provide access to all plots on the Park. If required, temporary haul roads shall be constructed of crushed concrete, with a minimum width of 7.0 metres.

15. Once preparatory ground works are completed, works shall commence on the construction of the individual units, internal access roads, parking and service areas.

Part 1: Site Preparation and Construction Standards

Part 1: Site Preparation and Construction Standards

A. Traffic Management

A1 Site Access

A1.1 Site access for construction vehicles shall be from the Manorway (A1014) via the existing Port/Park Access Road.

A1.2 Emergency vehicles shall continue to be permitted to use Gates 1, 2 and 3 in perpetuity.

A2 Routing of Construction Traffic and Lorries

A2.1 If travelling from outside the immediate Stanford-Le-Hope or Corringham area, lorries and construction traffic shall use the major road network to access the site via the A13 and A1014. The use of Southend Road, Lampits Hill, Corringham Road, Fobbing Road or other local residential roads, shall be avoided.

A2.2 Where construction traffic originates from the local area, contractors and suppliers shall be advised of the requirement to access the preferred routes indicated on Figure 1 in the most direct manner possible, having regard to the suitability of the local road network.

A2.3 The Borough of Thurrock, Corringham and Stanford le Hope (Weight Restriction) Order 2003 prohibits vehicles over 7.5 tonnes (gross weight) from driving in the following areas:

Stanford le Hope

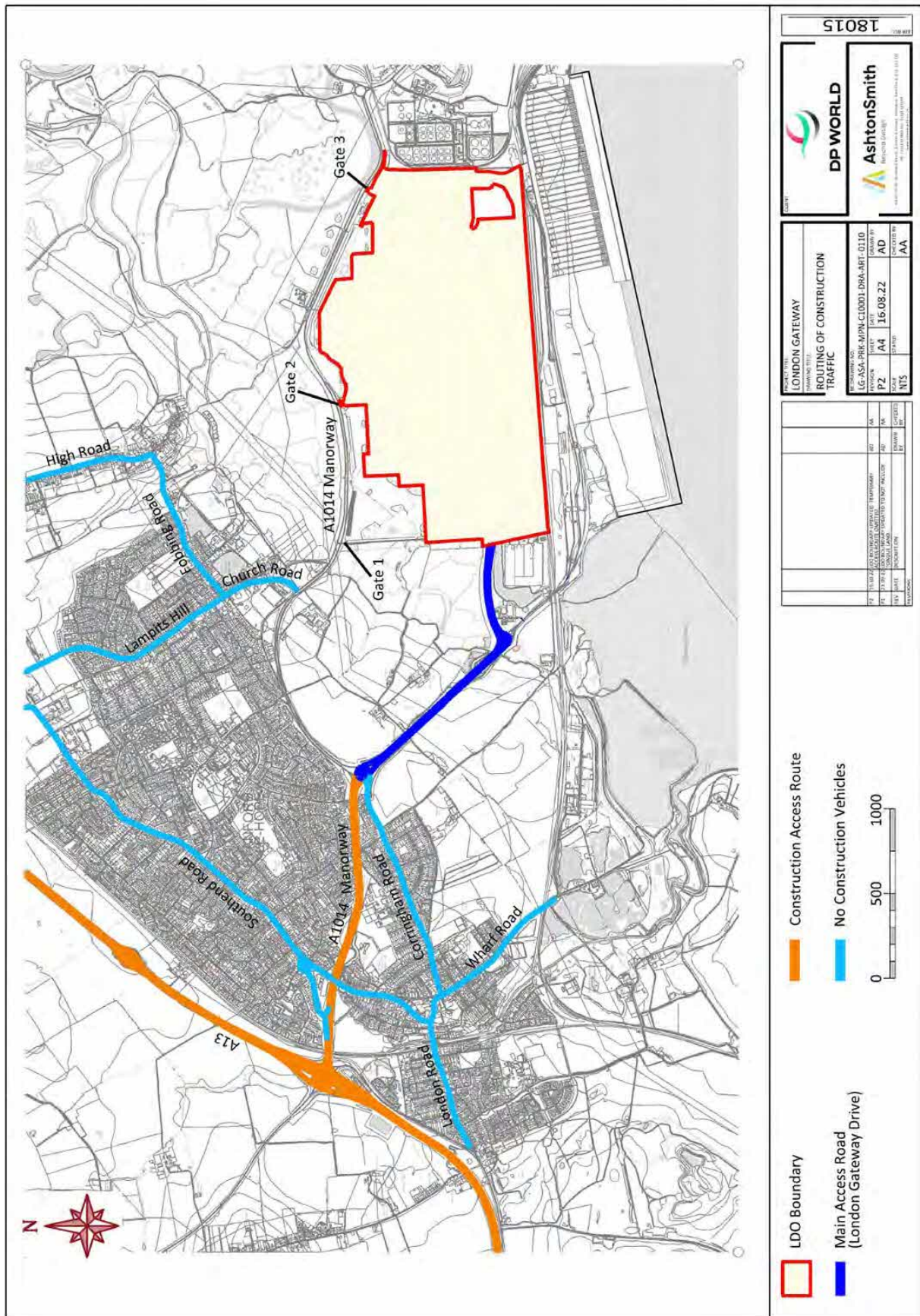
- Bounded by London Road at its junction with the A13 north eastwards on the southeast side of A1013 to its junction with the Manorway, eastwards on the southern side of the Manorway to its junction with Springhouse Lane, southwards down the eastern side of Springhouse Lane to Corringham Oil Refineries railway then in a westerley direction to its junction with London Road/A1013.

Corringham

- Bounded by the Manorway at its junction with the A13 north eastwards on the southeast side of the A13 to its junction with the High Road, southwards on the eastern side of the High Road to the Manorway, westwards on the northern side of the Manorway to its junction with the A13.

A2.4 Directional traffic signs notifying drivers of preferred construction routes shall be placed in clear view at all site exits and in construction compounds and shall be highlighted within site inductions.

Figure 1: Routing of Construction Traffic



A3 Emergency Access Strategy

A3.1 In the event that a traffic incident prevents access to the site via the A13 or A1014, contractors shall notify the supplier and request that any trips planned by vehicles in excess of 7.5 tonnes be rescheduled where possible.

A3.2 Traffic management procedures for the stacking or diversion of vehicles during emergency incidents have been agreed in principle with emergency service operators and shall be implemented accordingly. In the event of a diversion the B1420 is likely to be signed as the most appropriate alternative route of access to/from the A13 for HGVs exiting the site with HGVs approaching the Park being diverted back onto the A13 via the Five Bells junction.

A3.3 Gates 1, 2 or 3 shall remain available in perpetuity to provide access routes for emergency vehicles as appropriate dependent upon the location of the emergency incident within the Park.

A4 Abnormal Loads

A4.1 Where abnormal loads have to be delivered to the site by road, the protocols set out in the Highways Agency's "Aide memoire for notification requirements for the movement of Abnormal Indivisible Loads or vehicles when not complying with The Road Vehicles (Construction and Use) Regulations 1986" (as amended) shall be adhered to, as shown in Table 1.

A5 Sustainable Transportation

A5.1 Wherever possible the transportation of construction material by road shall be minimised and the methods of transportation shall be considered in accordance with the following hierarchy:

- Potential to utilise materials recycled from within the development site boundary (existing hard-standings, roads, drainage, stockpiles, structures or use of dredged material);
- Consideration of potential to develop materials on site (concrete batching, etc.);
- Transportation via sea or rail;
- Transportation by road.

A5.2 Where transportation of materials by road is necessary the following measures shall be considered:

- Proximity of suppliers to the development site;
- Use of vehicles with low emissions;
- Arrangement of deliveries outside the am and pm peak hours;
- Optimisation of vehicle loading;
- Implementation of appropriate route management;
- Adoption of efficient delivery management protocols.

Table 1 Notification Requirements for the Movement of Abnormal Loads

Weight

Gross weight of vehicle carrying the load exceeding C & U limits up to 80,000kgs (78.74 tons)	2 clear days notice* with indemnity to Highway and Bridge Authorities.
Gross weight of vehicles carrying the load exceeding 80,000kgs up to 150,000kgs (147.63 tons)	2 clear days notice* and 5 clear days with indemnity to Highways and Bridge Authorities.
Gross weight of vehicle carrying the load exceeding 80,000kgs up to 150,000kgs (147.63 tons)	HA Special Order** plus 5 clear days notice* to Police and 5 clear days notice with indemnity to Highways and Bridge Authorities.

Width

Width exceeding 2.9m (for C & U loads) 3.0m (9ft 10ins) up to 5.0m (16ft 5ins) for other loads	2 clear days notice* to Police.
Width exceeding 5.0m (16ft 5ins) up to 6.1m (20ft)	HA form VR1** plus 2 clear days notice* to Police.
Width exceeding 6.1m (20ft)	HA Special Order** plus 5 clear days notice* to Police and 5 clear days notice with indemnity to Highway and Bridge Authorities.

Length

Length exceeding 18.65m (61ft 2in) up to 30.0m (98ft 5ins) rigid.	2 clear days notice* to Police.
Vehicle combination exceeding 25.9m (85ft)	2 clear days notice* to Police.
Length exceeding 30.0m (98ft 5ins) rigid, NB For some very light loads, such as yacht masts, that are moved on conventional motor vehicles not exceeding 12 tonnes gross weight or trailers not exceeding 10 tonnes gross weight, an HA Special Order will be required if the rigid length exceeds 27.4m (89'11")	HA Special Order** plus 5 clear days notice* to Police and 5 clear days notice* with indemnity to Highway and Bridge Authorities.

*'Clear days Notice' excludes Saturdays, Sundays or a public holiday in any part of Great Britain in relation to movements authorised by the Special Types General Order only, there being no such exclusion in Special Orders unless specifically stated.

** There is no statutory limit governing the overall height of a load, however, when applying for a Special Order or VR1 it should, wherever possible not exceed 4.95m (16ft 3ins) in order that the maximum use can be made of the motorway and trunk road network.

B. Construction Compounds**B1 Construction Compounds**

B1.1 Each contract for the construction of infrastructure or plot related works may be served by a separate segregated construction compound. The construction compound layout and position shall be dictated by the nature, scale, and location of individual development plots.

B1.2 Construction compounds shall make provision for the parking and maneuvering of contractor's vehicles and if required, temporary hard-standings for the safe and secure storage of construction materials and plant, temporary office and welfare facilities and the control of pollution. Construction compound management shall include measures to prevent and respond to the escape of spilled materials from the compound to surface waters or groundwater in accordance with the procedures set out in Section G of the CoCP.

B1.3 Portacabin type accommodation shall be a maximum of three storeys in height. Perimeter security fencing panels, where required by individual contractors, shall be installed to a maximum height of 3.0m.

B1.4 Secure tool lockers and shower facilities shall be provided within construction compounds. A phone line for public enquiries shall be made available and publicised on London Gateway's website.

B1.5 Barriers which provide visual screening shall be installed around construction compounds situated within 250m of the site boundary adjacent to the grazing marshes.

B2 Access

B2.1 Internal access shall principally be achieved using either the existing site access roads, or temporary haul roads constructed of crushed concrete with a minimum width of 7.0 metres. A 20mph vehicle speed limited shall be in force across the site.

B3 Delivery and Storage of Materials

B3.1 An area of impermeable hard-standing shall be provided, if required, within each construction compound for the delivery and storage of materials. Existing areas of hard-standing within the site shall be used wherever suitable, however if additional areas of hard-standing are required, they shall meet the following standards.

B3.2 Where existing areas of hardstanding are not available or suitable for the storage of materials, impermeable areas shall be created comprising either (a) an impermeable hardstanding or (b) crushed concrete underlain by an impermeable membrane. Drainage shall be provided via the temporary ditches and any material that may cause contamination shall be bunded in accordance with best practice guidance to contain possible spillages and prevent pollution.

B4 Parking of Construction Related Vehicles

B4.1 Parking for construction workers shall be provided either within each construction compound serving separate elements of construction or within a communal parking area serving more than one works.

B4.2 Parking shall be provided as follows:

Contractor Parking - 0.75 spaces per full time operative employed on-site.
Site Visitors - 0.25 spaces per full time operative employed on-site.

B4.3 The following parking management measures shall be adhered to:

- Parking shall be prohibited on all internal access roads or any areas outside of construction compounds unless specifically required as part of the construction or inspection process.
- Cycle, motorcar, LGV and HGV parking areas shall be segregated.
- Signage denoting parking areas and access routes for vehicles and pedestrians shall be provided.
- Sufficient manoeuvring areas shall be provided in accordance with the Design Code.
- Preferential parking shall be provided for operatives engaged in car sharing.
- Promotional information shall be posted on communal notice boards relating to the benefits of car-sharing and other sustainable travel initiatives.
- Information relating to local public transport services shall be provided.
- Minibuses shall be made available for construction operatives where practical.
- When not in use, all vehicles shall be securely parked within construction compounds.

B5 Wheel Cleaning and Wash Facilities

B5.1 The main site access road and internal logistics park infrastructure roads have now been completed such that construction compounds and work sites are remote from the public highway network. Egress from construction sites and compounds shall be monitored by a banksman. Where the banksman considers potential exists for mud or debris to be tracked onto the public highway he shall direct the vehicle to be subject to wheel cleaning before leaving the site.

B5.2 At all times that construction activities are taking place a road sweeper shall be made available to carry out cleaning of the logistics park internal highway network and main site access road.

B5.3 If implemented, wheel wash facilities shall be self-contained units. Systems shall be portable, require no ground excavation (save for an appropriately sized sump e.g. 0.75m x 0.75m) and not impact upon ground-water quality. The wheel wash facility shall be subject to regular inspection and maintenance.

B5.4 Disposal of debris/water shall be in accordance with Section E of this CoCP .

B6 Hours of Working

B6.1 Core working hours are defined as follows:

- Weekdays (excluding bank holidays): 07:30 to 19:00.
- Saturdays: 08:00 to 13:00.

B6.2 Best practical means of noise control shall be employed in accordance with BS 5228-1:2009+A1:2014 to ensure that the construction noise level, at 1 metre from the façade of the nearest residential receptor, is not in excess of 65 dB LAeq,1hour during core working hours.

B6.3 If any construction activities have to be planned to take place outside core working hours and/or have the potential to result in a construction noise level exceeding the levels set out in Table 2, these works shall only take place in accordance with a licence provided by the

Environmental Health Authority pursuant to Section 61 of the Control of Pollution Act 1974. As part of the application, the Contractor shall demonstrate that the proposed works incorporate best practical means of noise control with the aim of not exceeding the limits within Table 2.

B8.4 Refer to F8.2 regarding mitigation of noise for the protection of ecological receptors.

Table 2: Construction noise limits at the nearest residential receptors

Time of Day	Construction noise limit, dB $L_{Aeq,1hour}$
<i>Core working hours:</i> Weekdays (excluding bank holidays): 07:30 to 19:00 Saturdays: 08:00 to 13:00.	65
<i>Evenings, weekends and bank holidays:</i> Weekdays (excluding bank holidays): 19:00 to 23:00 Saturdays: 13:00 to 23:00 Sundays and bank holidays: 08:00 to 23:00	55
<i>Night-time:</i> each day 23:00 to 07:00	45
<i>Note 1: Construction noise limit applies at a position 1m from a residential building, in façade conditions.</i>	
<i>Note 2: If the ambient noise level, in the absence of noise from the works, exceeds the construction noise limit above, the total noise level, dB $L_{Aeq,T}$ during the works shall not exceed the ambient noise level by more than 3 dB $L_{Aeq,T}$.</i>	

C. Site Remediation Works

C0.1 Historical land uses have led to soil and groundwater contamination in some parts of the site. Works to remediate the site have already commenced and a substantial part of the site has now been remediated. Remediation of the remainder of the site shall proceed in a manner and to a programme that supports the development of plots, responding flexibly to commercial needs.

C0.2 The development of an individual plot shall only commence when that plot has been remediated in accordance with the procedures and methods specified below.

C0.3 The investigation, risk assessment and remediation of soil and groundwater shall be undertaken in accordance with the Environment Agency's Land Contamination Risk Management (LCRM).

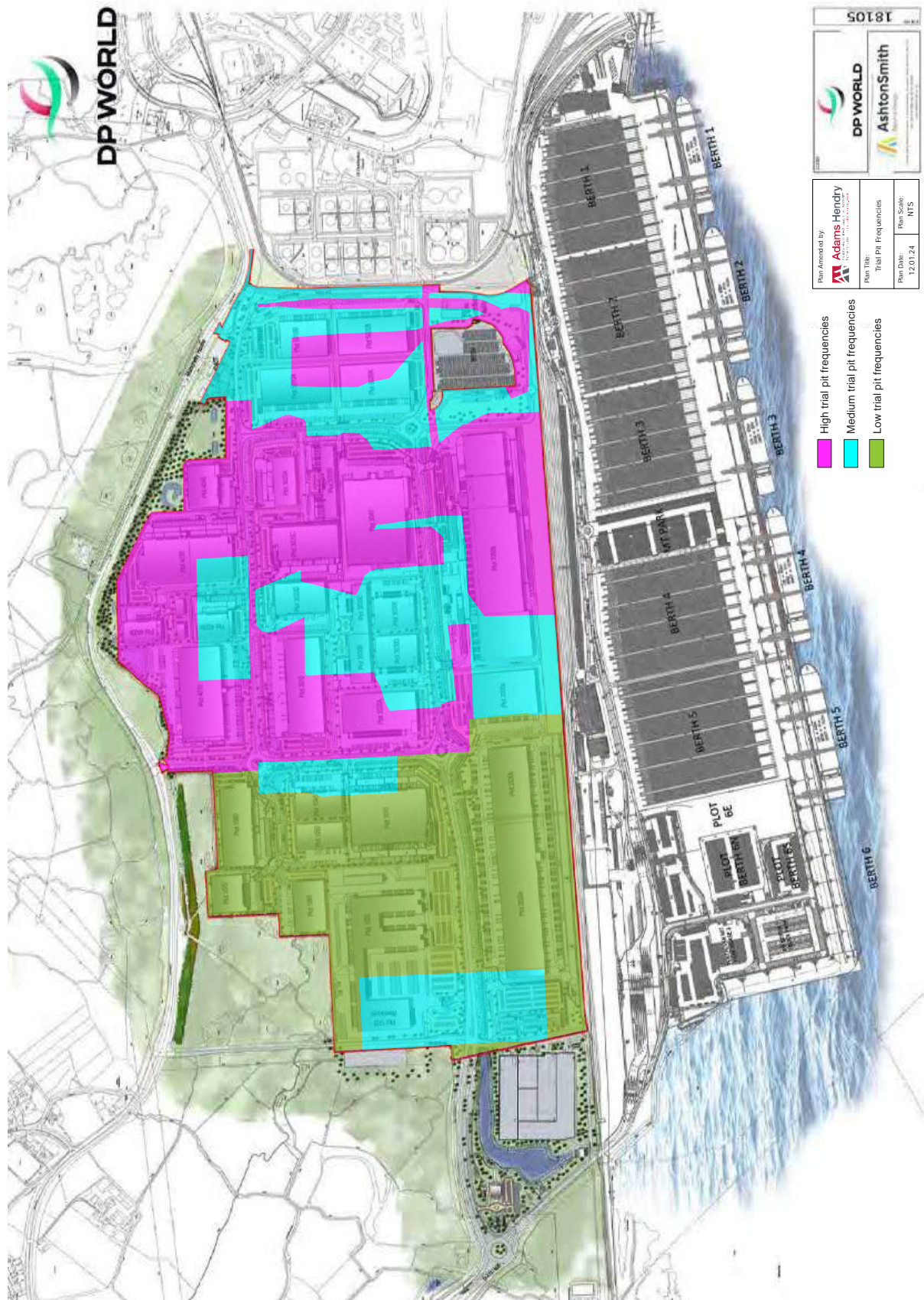
C0.4 Where appropriate, contaminated soil and groundwater shall be treated for reuse on site, or where not appropriate for reuse, categorised and segregated for off-site disposal.

C1 Site investigation, contaminated soil excavation and backfilling works

C1.1 Site investigations have been undertaken and areas of the site have been categorised as having a low, medium or high risk. Following an appraisal of site conditions (based on the former use, frequency of investigations, previous remediation works and TPH concentrations) trial pits shall be excavated to an appropriate depth to meet the requirements of the contaminated land risk assessment strategy in the areas shown on Figure 2 as follows:

- (i) Low Risk – 2 trial pits per hectares
- (ii) Medium Risk – 3 trial pits per hectare

Figure 2: Contamination Risk Plan



- (iii) High Risk – 7 trial pits per hectare
- (iv) Along the route of drainage swales, for balancing ponds and where utilities are to be buried, at a frequency of 30m.

C1.2 Soil samples shall be collected and visually inspected by an appropriately qualified and experienced person for the level of risk in that area for both field screening and laboratory analysis for comparison against Site Specific Target Levels (SSTLs) as set out in Table 3 and Table 4. The laboratory must be UKAS accredited and hold MCERTS accreditation for the soil tests and ISO accreditation for water. The SSTLs establish the maximum permissible concentration of each appropriate contaminant which can be present in soils on site without posing a risk to human health.

C1.3 Additional intrusive investigation techniques may be utilised to allow characterisation of site conditions. Such techniques may include advancing boreholes, multi-interface probes and drainage investigation surveys.

C1.4 A Relic Drainage Assessment shall be undertaken of the historic drainage channels, which are predominately located in the southern, northern and eastern areas of the site. The construction of the channels shall be assessed and sediment/sludge samples collected and analysed.

Table 3 Human Health Site Specific Target Levels (SSTL) – Soils

Contaminant	Sand, pH 7, SOM 1% Import Material / Topsoil (ENVIRON GAC Commercial) mg/kg	Sand silt loam, pH 7, SOM 1% Landscaped Areas 0.3 - 1.0m bgl mg/kg	Sand silt loam, pH 7, SOM 1% Landscaped Areas 1.0-3.0m bgl mg/kg
Inorganics/Metals			
Arsenic	635.06	647.39	NR
Aluminium	387,574.40	1,820,018.95	NR
Antimony	7,546.24	13,190.92	NR
Barium	22,075.86	22,215.95	NR
Beryllium	417.10	3,967.39	NR
Boron	192,495.48	237,661.35	NR
Cadmium	230.29	398.39	NR
Chromium III	30,356.33	310,351.37	NR
Chromium VI	34.76	2,009.09	NR
Copper	71,742.09	176,643.16	NR
Lead	750.00	750.00	NR
Mercury (Inorganic)	3,641.42	4,405.40	NR
Molybdenum	17,673.04	17,937.12	NR
Nickel	1,787.58	22,423.36	NR
Selenium	13,023.11	13,105.79	NR
Vanadium	3,164.09	5,911.15	NR
Zinc	665,453.08	666,510.60	NR
Asbestos ¹	0.001% w/w	0.001% w/w	NR
BTEX and TMB			
Benzene	15.83	570.92	Saturation
Ethylbenzene	Saturation	196,318.19	Saturation
Toluene	Saturation	444,633.92	Saturation

Xylene, o-	Saturation	311,910.77	Saturation
Xylene, m-	Saturation	310,293.45	Saturation
Xylene, p-	Saturation	309,402.92	Saturation
1,2,3-Trimethylbenzene	18.88	46,055.48	Saturation
1,2,4-Trimethylbenzene	22.88	1,966.40	Saturation
1,3,5-Trimethylbenzene	12.71	38,850.17	Saturation
Methyl tert-butyl ether (MTBE)	4,017.14	592,486.44	Saturation
Tributyl Tin (oxide)	134.01	243.70	Saturation
TPH			
TPH Aliphatic C5-C6	Saturation	Saturation	Saturation
TPH Aliphatic C6-C8	Saturation	Saturation	Saturation
TPH Aliphatic C8-C10	Saturation	99,621.39	Saturation
TPH Aliphatic C10-C12	Saturation	100,462.36	Saturation
TPH Aliphatic C12-C16	Saturation	100,897.34	Saturation
TPH Aliphatic C16-C35	Saturation	2,009,736.76	NR
TPH Aliphatic C35-C44	Saturation	2,009,736.76	NR
TPH Aromatic C5-C7 (Benzene)	15.83	570.92	Saturation
TPH Aromatic C7-C8 (Toluene)	Saturation	444,633.92	Saturation
TPH Aromatic C8-C10	Saturation	40,067.13	Saturation
TPH Aromatic C10-C12	Saturation	40,294.05	Saturation
TPH Aromatic C12-C16	Saturation	40,409.96	Saturation
TPH Aromatic C16-C21	28,134.67	30,258.05	NR
TPH Aromatic C21-C35	28,435.70	30,304.73	NR
TPH Aromatic C35-C44	28,435.70	30,304.73	NR
TPH Aliphatic & Aromatic C44-C70	28,408.02	30,312.21	NR
PAHs			
Acenaphthene	Saturation	117,690.21	Saturation
Acenaphthylene	Saturation	117,665.44	Saturation
Anthracene	522,477.94	589,566.25	Saturation
Benz(a)anthracene	91.02	233.95	Saturation
Benzo(a)pyrene	14.30	35.03	Saturation
Benzo(b)fluoranthene	101.55	246.35	Saturation
Benzo(k)fluoranthene	143.21	352.89	Saturation
Benzo(ghi)perylene	658.49	1,668.86	Saturation
Chrysene	140.17	331.80	Saturation
Dibenzo(ah)anthracene	12.87	32.17	Saturation
Fluoranthene	22,606.84	24,580.34	Saturation
Fluorene	Saturation	78,510.18	Saturation
Indeno(123-cd)pyrene	61.00	147.73	Saturation
Naphthalene	Saturation	29,890.28	Saturation
Phenanthrene	21,898.80	24,522.23	Saturation
Pyrene	54,263.16	59,002.39	Saturation
Chlorinated Solvents			
1,2-Dichloroethane (1,2- DCA)	0.36	224.95	1,852.53
1,1,1-Trichloroethane	391.51	Saturation	Saturation
1,1,2,2-Tetrachloroethane	156.09	11,349.33	Saturation
1,1,1,2-Tetrachloroethane	62.72	11,200.91	Saturation
Tetrachloroethene (PCE)	72.19	27,261.37	Saturation
Tetrachloromethane (carbon tetrachloride)	1.74	Saturation	Saturation

Trichloroethene (TCE)	6.61	Saturation	Saturation
Trichloromethane (chloroform)	57.25	21,250.90	Saturation
Chloroethene (vinyl chloride)	0.04	27.73	143.09
1,1,2-Trichloroethane	51.13	7,799.64	Saturation
1,1-Dichloroethane	148.25	Saturation	NR
1,1-Dichloroethene	15.36	Saturation	Saturation
Chlorobenzene	32.75	91,337.62	Saturation
1,2-Dichlorobenzene	Saturation	680,645.87	Saturation
1,3-Dichlorobenzene	17.66	3,315.10	Saturation
1,4-Dichlorobenzene	Saturation	138,480.32	Saturation
1,2,3-Trichlorobenzene	58.56	14,024.89	Saturation
1,2,4-Trichlorobenzene	123.25	76,071.19	Saturation
1,3,5-Trichlorobenzene	12.83	12,351.71	Saturation
1,2,3,4-Tetrachlorobenzene	Saturation	6,759.42	Saturation
1,2,3,5-Tetrachlorobenzene	27.98	744.71	Saturation
1,2,4,5-Tetrachlorobenzene	Saturation	124.94	Saturation
Pentachlorobenzene	Saturation	942.27	Saturation
Hexachlorobenzene	Saturation	60.85	Saturation
Phenol			
Phenol	30,790.39	64,024.72	Saturation
2-Chlorophenol	3,587.29	5,055.25	Saturation
2,4-Dichlorophenol	3,532.39	5,039.91	Saturation
2,4,6-Trichlorophenol	Saturation	5,055.14	Saturation
2,3,4,6-Tetrachlorophenol	Saturation	5,050.95	Saturation
Pentachlorophenol	1,233.73	1,571.45	Saturation
Hexachloro-1,2-butadiene	17.58	306.14	Saturation
Chloroethane	566.89	Saturation	Saturation
Chloromethane	0.59	Saturation	Saturation

NR – Not required. – This has been assessed qualitatively based on the non-volatile properties of the contaminant.

Saturation – the concentration above which the contaminant might be considered to represent a significant risk via modelled pathways exceeds the contaminant saturation value (for the soil type modelled). This is interpreted as a requirement to be present as free phase product before it was considered to represent a potential risk. Mobile free phase product will be treated in accordance with the strategies set out in this document.

¹ Asbestos concentrations in soils must not exceed 0.001% w/w in material that will be handled/disturbed in landscaped areas.

Table 4 Leachate Criteria

Contaminant	Leachate Criteria µg/l	Source of Value
Hydrocarbons		
Total Hydrocarbons	10	UK DWS
Benzene	8	WFD EU EQS
Ethylbenzene	20	Non-Statutory DSD
Toluene	40	EU EQS - UKTAG
Xylene	30	UK EQS (from DSD)
Polycyclic Aromatic Hydrocarbons (PAHs)		
Naphthalene	1.2	WFD EU EQS
Benzo(a)pyrene	0.05	WFD EU EQS
Benzo(b)fluoranthene	10.03	WFD EU EQS
Benzo(k)fluoranthene		
Benzo(ghi)perylene	10.002	WFD EU EQS
Indeno(123cd)pyrene		
Fluoranthene	0.1	WFD EU EQS
Inorganics		
Arsenic	25	EU EQS- UKTAG
Cadmium	0.2	WFD EQ EQS
Chromium (Trivalent)	4.7	EU EQS - UKTAG
Chromium (Hexavalent)	0.6	EU EQS- UKTAG
Copper	5	EU EQS- UKTAG
Cyanide	1	EU EQS- UKTAG
Lead	7.2	WFD EU EQS
Mercury	0.05	WFD EU EQS
Nickel	20	WFD EQS
Total Phenols	7.7	EU EQS- UKTAG
Selenium	10	UK DWS
Zinc	40	EU EQS- UKTAG
Miscellaneous		
Tributyl Tin	0.0002	WFD EU EQS
Chloride	250,000	Non-Statutory DSD
Pentachlorophenol	0.4	WFD EU EQS

WFD EQ EQS–2008/105/EC Directive on Environmental Quality Standards in the field of Water Policy

EU EQS UKTAG–refer to item 2 below.

Non-statutory DSD–refer to item 4 below.

Assessment of other contaminants may be required, dependent on source material and assessment criteria will be based on the following in order of priority:

1. EU EQS for Priority Substances, obtained from Part 5 of the 2009 Ministerial Directions (based on 'other surface waters' (i.e. coastal and saline waters) annual average EQS)
2. UK derived EQS for Specific Pollutants, obtained from Part 4 of the 2009 Ministerial Directions (EU EQS UKTAG)
3. For substances which are not contained within Part 5 or Part 4 of the Ministerial Directions, refer to the UK DSD EQS
4. Former Non-Statutory UK DSD EQS (draft EQS for the DSD not formally implemented, but were used by the EA in the absence of other criteria).

UK DWS–UK Drinking Water Standards

Leachability testing will be required to be undertaken in accordance with BSEN12457-2 (single stage leach test at L/S 10 (water:soil 10:1) for 24hours) Note - as consistent test results have been obtained from plot specific testing to date in future a frequency of 1 per 10,000m³ with a minimum of 3 samples per plot is acceptable unless agreed otherwise with the regulatory authorities.

C1.5 There is potential for unexploded ordnance to be present on the site and this risk shall be taken into account prior to all intrusive investigations.

Delineation

C1.6 Where soil samples exceed the screening criteria in laboratory analysis, further targeted trial pit investigation at a more intensive frequency shall be undertaken to identify the nature and extent of the identified contamination.

Excavation and Tracking

C1.7 Delineated soils which exceed the screening criteria shall be excavated and transported directly to the on site Remediation Compound. All significant movements of soil, whether considered to be contaminated or not, shall be tracked.

Validation and Backfilling

C1.8 Further soil samples shall be collected from the base and sidewalls of remaining excavations on a 25m grid with a minimum sample of 1 per base and 1 per wall and these shall be compared with the screening criteria. Where soils are suitable for use, the excavation shall then be backfilled with suitable materials.

C1.9 All relevant documentation shall be filed for inspection for a minimum of 2 years and shall be reported in a Validation/Verification Report.

C1.10 Evidence that the soil falls within the SSTLs criteria shall be submitted to Thurrock Council's Environmental Health Department.

C2 Operation of Remediation Compound

C2.1 The compound shall be used temporarily for the stockpiling, sorting and treatment of excavated materials during the remediation process. Treatment bays shall be impermeable, be routinely maintained and designed and built to prevent any horizontal or lateral migration of contaminants.

C2.2 The compound shall include segregated areas for stockpiling site won contaminated and non-contaminated soils.

C2.3 Uncontaminated standing water outside of the treatment bed area shall be pumped away to nearby surface water drainage as needed.

C2.4 Spill kits shall be made available on site in the event of accidental leakage from site traffic or delivery of fuel to bowsers outside of the treatment bays. Staff shall be trained in the use of spill kits and made aware of their locations. All fuel bowsers shall be double banded and located within the site compound area. Refuelling areas shall be located away from surface watercourses and drains to prevent pollution.

C2.5 Stockpiles shall be stored in such a way as to minimise dust emissions. For example, they shall be sealed when material is not being processed and in dry conditions dampening techniques shall be deployed to minimise dust generation during loading/unloading and mechanical processing of soil if required.

C2.6 All remediation compounds will obtain and comply with any Environmental dss as required under the prevailing Environmental Permitting Regulations. Any monitoring and mitigation measures identified in the Permit will be implemented to ensure any impacts are appropriately managed.

C2.7 To manage water run-off, rain and leachate within the treatment area, a water treatment plant shall be set-up consisting of a settlement tank, oil water separator, sand and carbon filtration (a Granular Activated Carbon System (GAC)). Water produced shall be piped into the adjacent site drainage in compliance with the relevant discharge consent.

C2.8 Oil collected shall be stored in double skinned containers and disposed of off-site promptly.

C2.9 The level of odours shall be recorded daily during active treatment works e.g. turning of stockpiles. If odour nuisance arises, an odour suppression unit shall be utilised on the compound. Where any odours or emissions are likely to be transported beyond the site boundary at levels that would represent a significant nuisance or affect health of off-site receptors, immediate action shall be taken to stop operations giving rise to the emissions.

C2.10 The remediation compound shall be decommissioned upon completion of the remediation process and the compound shall be made good.

C3 Remediation Processes

C3.1 Contaminated soils shall be remediated in accordance with the Environmental Permit held for the site. Acceptable technologies are likely to include:

- Blending, mixing, bulking, particle size reduction and/or particle separation to facilitate remediation;
- Bioremediation;
- Chemical Oxidation;
- Stabilisation/Solidification;
- Pumping and treatment of perched water in excavations.

C3.2 Remediation Criteria targets required for treated soils are as follows unless otherwise agreed with the appropriate regulatory authority:

- i) <5,000 mg/kg Total Petroleum Hydrocarbons (TPH);
- ii) <1 mg/kg Benzene, Toluene, Ethylbenze & Toluene (BTEX) Compounds;
- iii) <150mg/kg Polyaromatic Hydrocarbons (PAH);
- iv) <5ppm Volatile Organic Compounds (VOC) (headspace screening).

C3.3 Free-phase oil product in groundwater or soils which are heavily impacted by hydrocarbons shall be removed and treated in-situ or in the treatment plant.

C3.4 Works shall be undertaken in accordance with the London Gateway Asbestos Management Plan (WSP, 2018) which has been approved by the Local Authority, or any subsequently approved updated plan. If potential asbestos containing materials (ACM) as visually identifiable material is encountered in the ground, isolation measures shall be undertaken prior to the impacted soils being assessed for potential re-use or disposal off-site. It may be possible to handpick visible asbestos and re-use the residual soils on-site if the residual soil asbestos concentrations meet the proposed criteria. This is subject to evaluation on a case-by-

case basis and the following criteria apply for site-won soils:

- i) Soils from 0.0 – 0.3m below final ground level of proposed landscaped areas and within 10m of a swale – <0.001% by weight (w/w);
- ii) Soils from 0.3 – 1.0m below final ground level of proposed landscaped areas – <0.001% w/w;
- iii) Soils at any depth below building footprint and hardstanding - <0.1% w/w;
- iv) Soils at 1 – 3m below final ground level – <0.1% w/w;
- v) Disturbed soils >0.1% w/w should be disposed of off-site.

C3.5 Any works involving asbestos in soils need to be assessed in terms of their nature and whether these are licensed or non-licensed works. For works to take place there needs to be appropriate health and safety documentation and mitigation in place to meet the requirements of the Control of Asbestos Regulations (2012) and associated guidance including, but not limited to, Approved Code of Practice (ACOP) L143 Managing and working with asbestos, and CL:AIRE's Control of Asbestos Regulations 2012 Interpretation for Managing and working with Asbestos in Soil and Construction and Demolition Materials (CAR SOIL).

C3.6 Remediation measures (e.g. hand picking of identifiable material from soil) shall be undertaken by suitably qualified personnel and in accordance with the licence requirements of the Control of Asbestos Regulation (2012) or any subsequent amendments to it.

C3.7 Where for logistical reasons it is not practical or prudent to transport contaminated soils to the Remediation Compound for treatment, in-situ remediation works may be undertaken, such as screening, grading and bio-remediation.

C3.8 If a batch of impacted soils is unsuitable for remediation either at a remediation compound or in-situ, then such material shall be quarantined and stored on an impermeable, bunded and controlled location. Following further testing, such material shall be removed from the site within three months for further treatment or disposal at a licensed facility unless an alternative date is agreed with the Environment Agency.

D Groundworks

D1 Bulk Upfilling

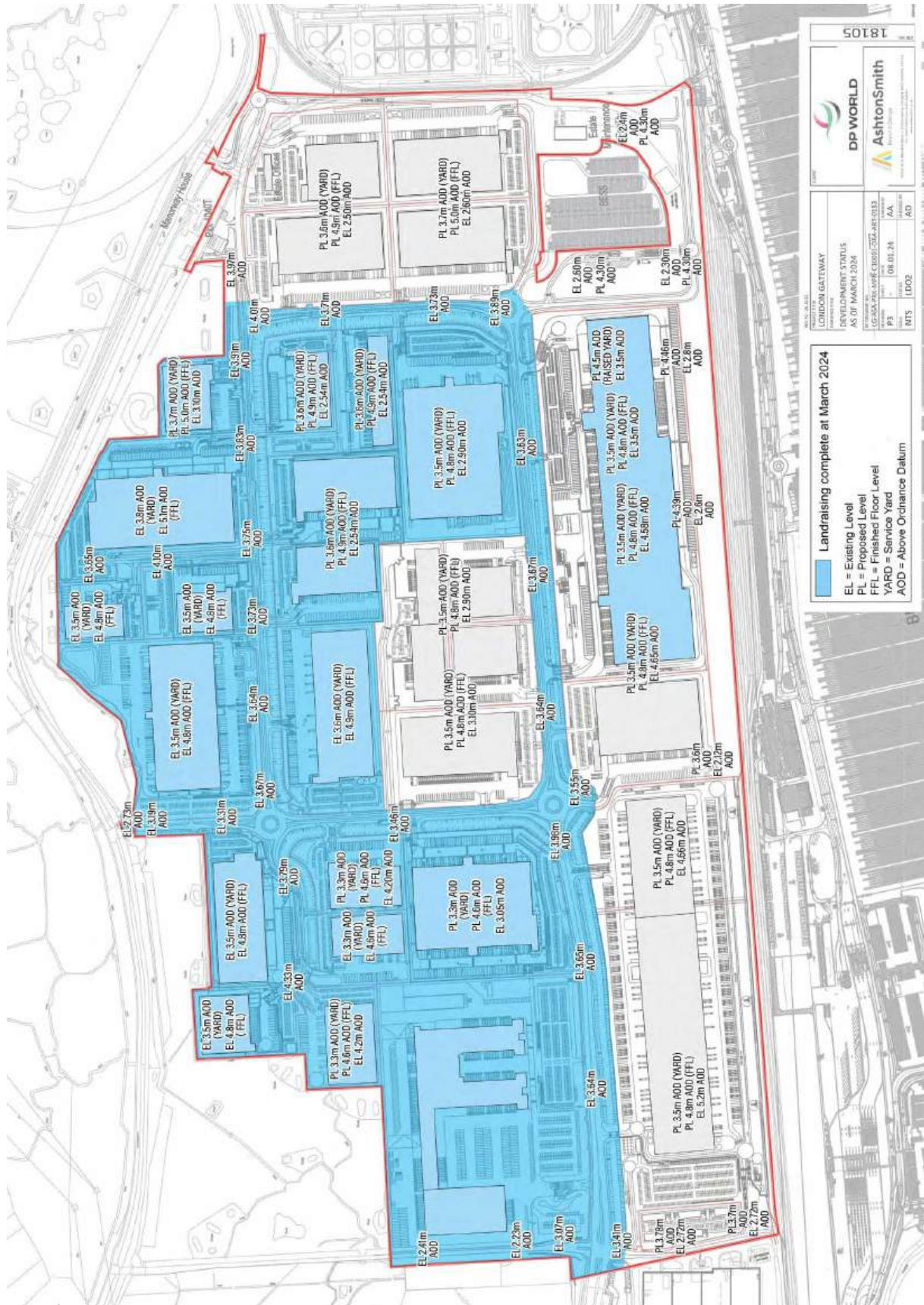
D1.1 The existing ground levels shall generally be raised across the Site to the levels shown on Figure 3, with localised additional raising up to finished floor level. Bulk upfilling works shall not commence until the underlying land has been remediated and validation completed.

D1.2 Where infilling proceeds on a plot by plot basis, the final ground level of each plot shall be contiguous with the finished ground level of the completed infrastructure service corridor and any other completed neighbouring plots. Plot boundaries abutting land that has still to be raised shall be shaped and contoured to allow surface water to drain to temporary ditches.

D1.3 The material required for raising levels may be obtained from either dredged material from the Thames Estuary, site won material (e.g. crushed concrete) or be imported.

D1.4 All potential fill material, wherever sourced, shall be screened and assessed for contamination and shall only be used where it meets the SSTLs or Import Criteria and as set out at Table 3 in Section C. Based on the outcome of assessment and screening process, suitable fill material shall only be used for those purposes specified in Table 5.

Figure 3: Existing and Proposed Site Levels Plan



D2 Imported Material

D2.1 Materials shall continue to be imported under the terms specified in Environmental Permit (Reference EPRIYP3691 EK/A001) which allows the re-use and recovery of waste materials for construction purposes. The import of material has strict controls over the type and condition of material that can be imported. The material must:

- conform with the types of material allowed for import in the Permit as classified by Waste Codes (e.g. soil and stones or crushed concrete);
- be of solid form with no liquid or saturated waste allowed;
- meet engineering specifications. Soil analytical test certificates must be provided prior to import and there must be conformance against the import criteria depending on the location of final use on-site (the import criteria are the SSTLS generated within the CLRAS as outlined in Table 3).

D2.2 Where material is imported for use in soft landscaping areas and where infiltration may lead to leachate generation, soil leachate testing (as per Table 4) shall be undertaken to confirm the suitability of material for re-use. On receipt at the site the imported material shall be subject to further visual inspection to verify that it conforms to the characterisation provided prior to import.

Table 5 Materials Management Strategy

Material		Assessment		Fate		
Mobile Free Phase Oil Product		Excavation for Ex-situ remediation at on-site remediation compound by third party				
Asbestos Impacted Soil in Areas of Future Ground Disturbance/ Material Re-use		Refer to the DP World Asbestos Management Plan and criteria set out in Table 3-1 of that document to select the appropriate asbestos in soil limits based on the proposed end use of the material.				
Source	Passes Import Criteria	Passes SSTL for proposed end placement depth (Refer to Scenario SSTLS Table C1)	For soils between surface and 1m depth and within 10m of swale Passes Leachate Criteria (Table C2)	Suitable for Use in all areas	Suitable for Use in all areas, except within 10m of swale	Suitable for Use under buildings /hard surfacing only
Site Won Excavated Materials		✓	✓	✓	–	–
		7	7	7		✓
		✓	7	7	✓	✓
Remediation Site Won Materials		✓	✓	✓		–
		✓	7	7	✓	✓
		7	7	7		✓
Imported Materials (Dredged)		✓	✓	✓		–
		7	7	7	7	✓
		✓	7	7	✓	✓
Imported Material (other)	✓	✓	✓	✓	–	–
		✓	7	7	✓	✓
	7	7	7	7	7	7

Note that any site won material not intended for use in soft landscaped areas and intended for placement beneath buildings or hard standing on-site should be subject to an assessment of the materials suitability for use including whether this placement would comply with the DP World Materials Management Strategy (2023) or any subsequently approved updated strategy.

D2.3 Sample analysis shall be carried out on all imported fill material. The analysis shall include an assessment of all chemicals identified as having potential to be present within soil following a review of the historical use of the land from which the imported material has been sourced. The limits set out in Table 3 and Table 4 define the maximum permitted concentrations of these identified chemicals in soils also taking into account any Environmental Permit requirements.

D2.4 In instances where the imported soils are placed (and thus effectively encapsulated) beneath a building footprint it may not be necessary to analyse these soils for their leachate quality.

D2.5 Potential fill material not meeting the import criteria (at the 95th percentile mean) will not be acceptable.

D2.6 A visual assessment for evidence of asbestos containing material, supplemented with confirmatory laboratory based screening shall be carried out by a suitably qualified person against a limiting value of 0.001% weight/weight.

D2.7 Primary aggregate used for concrete and road base shall not require any additional analysis to that provided within the material supply certificate. For recycled aggregates the absence of asbestos must be confirmed.

D2.8 Dredged material from the Thames estuary shall be reviewed against the SSTLs criteria set out previously in Table 3 in Section C to confirm its suitability for use.

D2.9 Soil for use in soft landscaped areas shall also be assessed against the criteria set out in Table 3 and Table 4 in Section C above. Soil leaching limits shall be applied to material intended for use in landscaped areas at the surface or to a depth of 1m and within 10m lateral distance of swales.

D3 Suitable End Uses for Material

D3.1 The suitable end use of site won, remediated or imported material is summarised in Table 5 based on the results of the assessment and screening process.

D4 Undiscovered Contaminated Soil and Groundwater Watching Brief

D4.1 During the course of any ground preparation works that penetrate existing site levels, a watching brief shall be undertaken by a suitably qualified person to identify undiscovered contaminated soil and groundwater.

D4.2 Work shall stop immediately should any material be encountered that appears to be visually impacted by mobile oil product and/or asbestos and LGPDL shall be notified and the material remediated in accordance with Section C of this document.

D5 Earthworks Procedure

D5.1 All movements of soil, whether considered to be contaminated or not, whether imported or site won, shall be tracked. An Earthworks and Materials Tracking Spreadsheet shall document each movement of soil around the Site, including site of origin and location of deposition, quantities and all quality control checks.

D6 Geophysical Survey and Removal of Obstructions

D6.1 Prior to plot development, a geophysical survey shall be undertaken.

D6.2 Where obstructions are encountered these shall be cut back as required to facilitate the construction of the new building otherwise obstructions shall be left in situ to avoid the risk of creating new pathways between shallow near-surface contaminated soils and the underlying Minor Aquifer. Building sub-structures shall be designed to overcome and bridge any existing piles. All material recovered shall be recycled and re-used on site wherever possible. Any underground services to be retained shall be checked and recorded.

D7 Piling Procedure

D7.1 Whilst all plots will have been subjected to detailed site investigation and where necessary remediation prior to construction work, there remains a possibility for hot spots of hydrocarbons or suspected asbestos contamination to be identified during site works. A risk assessment shall be undertaken prior to work commencing and the appropriate piling methodology (either driven or bored piles) adopted taking into account site conditions, previous site investigations etc. in line with the Environment Agency's National Groundwater and Contaminated Land Centre report NC/99/73 (May 2001): Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination or any subsequent updates to it. The floor slab design of buildings shall be constructed in accordance with CIRIA Report C665 and BS8485 and shall incorporate a gas and damp proof membrane with the necessary Quality Assurance and Quality Control as standard, beneath which the piling mat shall also provide a permeable venting layer to prevent the potential for volatilisation of contaminants and ground gases to enter indoor air spaces in the buildings. Service ingress points shall be sealed.

D7.2 A groundwater monitoring programme for the River Terrace Deposits (RTD) shall be maintained through the construction works to ensure that piling activities do not increase the risk of contamination to the underlying secondary aquifer, unless otherwise agreed with the Environment Agency.

D7.3 Visual and olfactory inspections shall be undertaken by suitably qualified persons during excavation activities. Should contamination be suspected work shall stop immediately and appropriate action taken.

D7.4 Trial piles may be utilised to inform foundation design. For any piling operations which are required to be undertaken within 25 metres of a vibration sensitive building a vibration impact assessment based on BS 5228-2:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites: vibration' shall be undertaken and depending on the outcome of the assessment, vibration monitoring conducted. Occupiers of buildings within 50 metres should also be taken into consideration when selecting a piling solution.

D7.5 When a site is partially built and piling works are required adjacent to an occupied plot potentially resulting in separation distances below 25 metres, measures to control vibration set out in BS5228 could include:

- The use of a low vibration alternative plant and/or methods of work e.g. using bored rather than driven piles.
- Measures to reduce the levels of vibration at source such as the reduction of energy per blow or pre-boring for driven piles and the removal of obstructions.
- Cut-off trenches.

D7.6 Between October-March all impact piling in the restricted area as shown on Figure 4 shall cease during periods of severe winter weather based on relevant measurements recorded at the Shoeburyness Meteorological Station, by reference to the Joint Nature Conservation Committee guidelines, "Statutory Suspension of waterfowl shooting in severe winter weather" (JNCC Report No. 45). This measure becomes active if the minimum recorded temperature at Shoeburyness is below 0°C for 14 consecutive days. Periods of up to 2 days of greater than 0°C (minimum) will not count towards the consecutive days and not restart the day count. Periods of greater than 3 days of greater than 0°C (minimum) will restart the day count and lift the restriction.

D7.7 Construction noise from piling works in the restricted area identified on Figure 4 shall be monitored by the Contractor at a position representing the closest part of the designated ecological sites listed below and the results made available to the Environmental Advisory Group on request. Noise monitoring shall include observations as to whether the source of short-term high noise levels is associated with the LDO development works. Where piling works result in construction noise levels exceeding the following thresholds, all piling activities shall cease:

Vange & Fobbing Marshes SSSI

- Maximum sound pressure levels of 63 dB LAFmax,1min more than five times in any hour.

Mucking Flats & Marshes SSSI

- Maximum sound pressure levels of 66 dB LAFmax,1min more than five times in any hour.

D8 Stripping and Storage of Topsoil and Sub Soil

D8.1 Most of the topsoil required shall be imported 'Multi-Purpose' grade in accordance with BS 3882-2015.

D8.2 Topsoil that exists on the site is of very thin depth and shall not generally be removed.

D8.3 Topsoil materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant life shall not be used. Peat or products containing peat shall not be used.

D8.4 All topsoil shall be tested to ensure that it is not contaminated with any hazardous material or substances including controlled wastes (as defined in the Environmental Protection Act 1990 Part IIA or any subsequent amendments to it) or hazardous wastes (as defined in the Hazardous Waste (England and Wales) Regulations 2005 or any subsequent amendments to it) and radioactive wastes (as defined in the Radioactive Substances Act 1993 or any subsequent amendments to it).

D8.5 The (maximum) limiting values for contamination of materials (including topsoil) are set out in Table 3 and 4 in Section C.

D8.6 Topsoil shall be deposited over new earthworks in bulk, in layers of 150mm vertical depth in grassed areas, 300mm for woodland and buffer planting, 350mm for ornamental shrub planting and 450mm depth for hedge trenches.

D8.7 Appropriate plant shall be used to minimise disturbance, trafficking and compaction during excavation and placement of topsoil.

D8.8 Contamination of topsoil by subsoil, stone, hard core, rubbish or material from demolition or construction works shall be screened out on site.

D8.9 Different grades of topsoil shall be kept separate from each other when stock piling and handling. Topsoil handling shall be kept to a minimum and in accordance with DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

D8.10 Stockpiling of topsoil shall be carried out in accordance with the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

D8.11 Topsoil shall not be compacted. A friable texture of visible crumbs shall be preserved.

D9 Final Ground Levels and Conditions

D9.1 Landscaping fill material to be used for shaping and contouring shall be sourced from within the site wherever possible. Prior to use, site won material shall have been tested and remediated to the appropriate standard as specified in Table 3 and 4 in Section C.

D9.2 All imported materials for use as a growing medium or for any other purpose, including fill, shall also be tested for compliance to the standard specified in Table 3 and 4.

D9.3 Deposition of landscape fill material shall be carried out as soon as practicable after excavation.

D9.4 The degree of compaction shall be sufficient to remove large voids and to produce a coherent mass whilst preventing over-compaction.

D10 Services Infrastructure

D10.1 Where the installation of water pipe, ducts or any other excavation occurs, a watching brief shall be maintained and any mobile oil product encountered will be excavated for ex-situ bioremediation at the remediation compound. Supply pipe materials shall be appropriate for use in contaminated ground. Supply pipes installed at shallower depths, within material used to raise ground levels, will not require any special mitigation measures other than the provision of a gravel/pea shingle filled trench.

E Waste Material Management

E0.1 All waste material generated on-site during the construction process shall be handled and disposed of in accordance with waste management legislation and the waste hierarchy as follows:

- Waste Prevention
- Material Reuse
- Material Recycling
- Disposal

E0.2 The management of construction waste shall be phased in line with the construction works phasing.

E0.3 During the construction phase, waste management shall be reviewed for each of the waste hierarchy stages and the suitability of the materials to each stage will be assessed. For material reuse, recycling and disposal off site, a review of waste management companies shall be undertaken to assess the capacity for certain materials to be recovered.

E0.4 The following measures shall be considered to ensure that waste is minimised:

- avoidance of waste at the design stage;
- use of materials with recycled content;
- provision of construction material cut to size to reduce waste generated in site;
- just-in-time deliveries;
- safe and secure storage of materials;
- minimisation of packaging;
- reuse or recycling of unwanted packaging e.g. pallets; and
- reuse of waste on site.

E0.5 The following targets have been set for waste management:

- 100% of remediated soil to be reused on-site;
- 80% of contractor's waste to be recycled (tracked through quarterly reporting system).

E0.6 Materials available within the development site (existing hard standing, roads, drainage, stockpiles, structures or use of dredged material) shall be re-used on site wherever possible.

E0.7 All construction works shall be carried out in accordance with a waste management plan to be prepared in relation to those works and which shall be made available to the EAG on request.

E1 Waste Streams and Segregation

E1.1 Waste shall be segregated into the following waste streams:

- Mixed construction/demolition waste – excluding:
- Timber
- Metal
- Cardboard
- Recyclable Office Waste
- Non-Recyclable Office Waste
- Insulation – glass fibre, mineral wool, purlboard, breather paper;
- 'Green waste'
- Plasterboard – all plasterboard waste must be sent to a licensed facility for recycling
- Concrete washout
- Road sweeper arisings (insert waste)
- Hazardous waste.

E1.2 Under no circumstances shall mixed demolition and construction waste go straight to landfill.

E2 Preventing Escape of Waste

E2.1 All waste produced on-site shall be appropriately stored to prevent escape or leakage whilst stored on-site or in transit. Waste storage facilities shall be suitable to contain waste and labelled with a description of the waste. Vehicles used for transporting waste shall be suitable to prevent escape during transit.

E2.2 Containment bunds with rain shelters and sealed containers shall be used if there is any likelihood of stored waste contaminating the surrounding area. Liquid waste shall be stored away from drains, boreholes and watercourses.

E2.3 No wastes shall be burnt or disposed on site.

E3 Transfer to an Authorised Person

E3.1 Waste shall only be transferred to an appropriately licensed waste consignee. A copy of the Waste Carriers Licence or registration shall be retained by the waste consignor.

E4 Off Site Waste Disposal or Treatment

E4.1 The final waste disposal or treatment facility must be authorised to accept specified wastes and hold an appropriate waste management license, environmental permit or waste management license exemption.

E5 Record Keeping

E5.1 Appropriate records for all waste material transported off-site shall be retained. The waste transfer notes and the consignment notes shall be retained for a minimum period required by the Waste (England and Wales) Regulations 2011 (as amended) or as per updated UK waste legislation of two years, and hazardous waste consignment notes shall be retained for a minimum period of three years.

E6 Managing Hazardous Waste

E6.1 The following measures shall be adopted for the management of hazardous waste.

- Hazardous wastes shall be segregated and stored in labelled facilities, or areas.
- Non-hazardous waste shall not be contaminated with hazardous waste.
- The Environment Agency shall be notified of the movement of hazardous waste, through the hazardous waste consignment process.
- All hazardous waste shall be clearly and appropriately identified and labelled prior to transit from site.

Part 2: Environmental Control Measures / Procedures

Part 2 Environmental Control Measures / Procedures

F Habitats and Protected Species

F0.1 Protected species have already been translocated to receptor sites within the vicinity of the development area as shown on Figure 5. Activities and works shall not disturb or damage the ecological mitigation and management measures that have already been implemented (e.g. fencing, ponds etc.). In the event that damage occurs it shall be repaired at the earliest practical opportunity. Further detail on the monitoring and management requirements for the ecological receptor sites is set out in the London Gateway Ecological Mitigation and Management Plan (EMMP).

F0.2 As part of an induction process, the contractor shall be made aware of the potential for protected species to be found on site. In the event that protected species are encountered during construction works, all works shall cease in that area until the procedures set out below have been satisfactorily completed.

F0.3 In the event a contractor encounters a protected species, to continue works a qualified ecologist shall be appointed to oversee the high-risk construction activities.

F1 Adder, Common Lizard, Slow Worm, Grass Snake

F1.1 Long-term reptile exclusion perimeter fencing has been erected between the logistics park and receptor sites to prevent reptiles entering the construction areas. The fencing shall be maintained until Natural England deem it is no longer necessary and through the relevant licences.

F1.2 Once every three months throughout the construction period, the integrity of the reptile exclusion fence shall be checked and, if damaged, shall be repaired immediately. If necessary, sections of damaged reptile exclusion fence shall be replaced, or if possible, repaired with a waterproof cloth tape.

F1.3 If encountered, reptile habitat shall not be disturbed between November and March whilst the animals are hibernating. If necessary, survey and translocation to an identified receptor site shall be carried out between April and September (occasionally early October). Any areas of reptile habitat identified shall be protected by post and wire fences to prevent accidental damage until the reptiles can be moved.

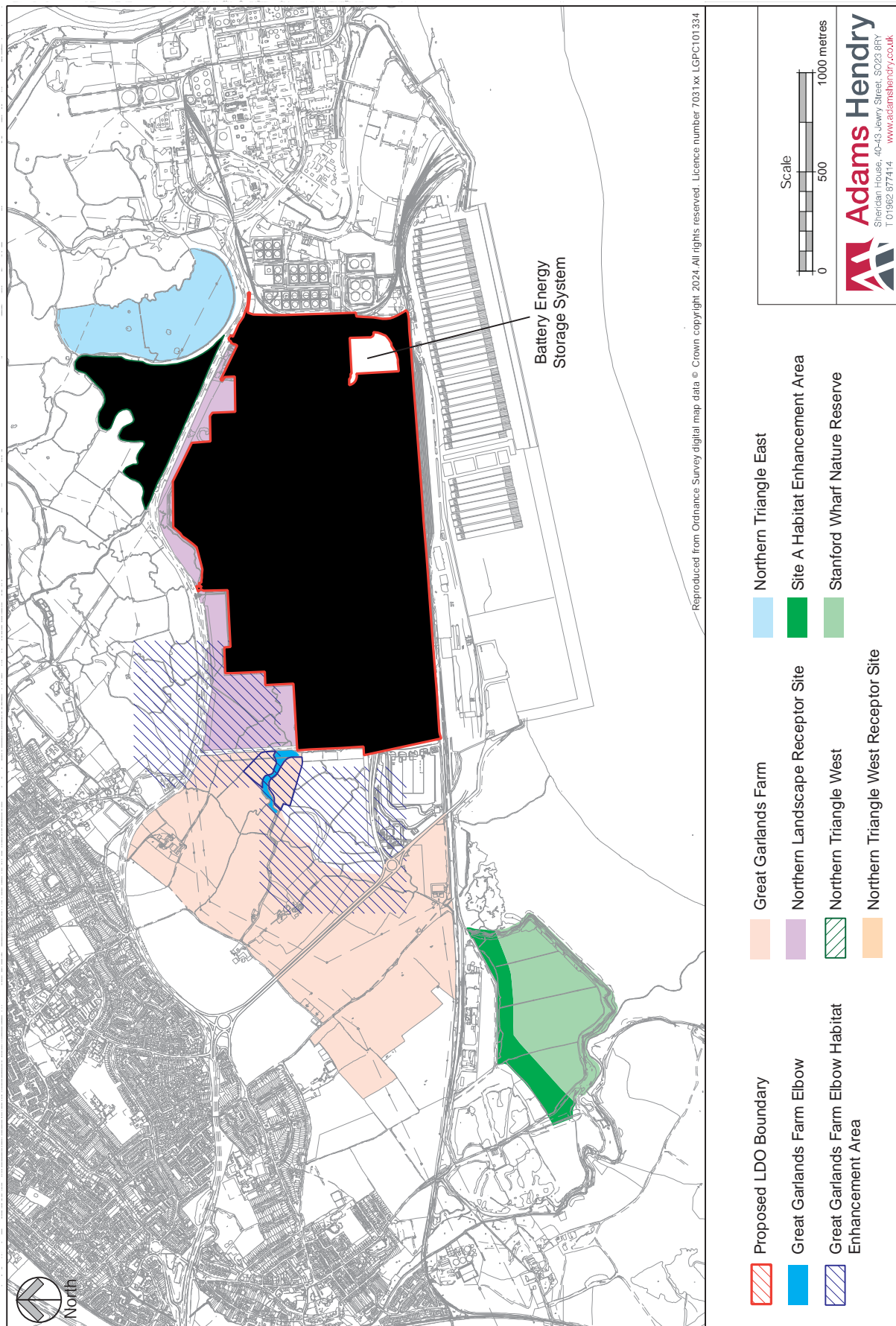
F1.4 Removal of the exclusion fencing post construction shall be done under the supervision of an ecologist and outside the reptile hibernation period, i.e. between the months of April to September inclusive.

F2 Great Crested Newt

F2.1 Amphibian fences and a secure fence shall be maintained around refuge areas for the duration of construction. A secure fence shall be maintained outside the amphibian fences to prevent accidental entry by construction traffic or plant. Warning signs shall be displayed to ensure contractor awareness.

F2.2 A watching brief for amphibians shall be maintained throughout all site clearance operations with amphibian potential and any animals found shall be removed to the refuge

Figure 5: Ecological Receptor Sites / Habitat Enhancement Areas



areas. The fences surrounding the newt refuges shall be walked at least once every three months throughout the construction period to check for and if necessary close up or repair any gaps or cracks through which newts could escape.

F2.3 An annual survey shall be carried out of suitable water bodies on remaining undeveloped plots and any animals found shall be translocated to suitable refuges. Handling and transfer of great crested newts shall be by a licensed ecologist.

F3 Bats

F3.1 Any buildings to be demolished shall be surveyed for the presence of bats and if any bats or bat roosts are present then work that will impact on bats and their roost shall not proceed until the appropriate European Protected Species License has been obtained from Natural England.

F3.2 No work shall be carried out on known or suspected hibernation roosts between December and February, or on a known or suspected maternity roost between May and August. Work is possible (under licences) on male bachelor roosts during the latter period.

F3.3 All site workers associated with the development of the site shall be informed of the presence of bat roosts and briefed to undertake actions to protect bat roosts within buildings.

F5 Water Vole

F5.1 Water voles on site have been translocated to a number of the receptor sites, which include, the in-site swale ditch network on the Park and the River Colne near Colchester.

F5.2 Any water bodies within the construction areas shall be surveyed by a qualified ecologist in advance of works and if water voles are present, steps shall be taken to exclude them and prevent recolonisation. Any remaining water bodies shall be fenced to prevent accidental damage by plant or vehicles and shall be protected from pollution or silt run-off from the works.

F6 Brown Hares

F6.1 Areas of grazing marsh and arable land in the vicinity of the works have been fenced off, preventing accidental incursion into the areas by construction traffic. In the event of construction works taking place at night, appropriate lighting (see paragraph K1.4) shall be erected along temporary construction traffic routes to help avoid collisions to brown hare as well as other species.

F7 Breeding Birds

F7.1 Prior to and during the construction period on undeveloped plots, breeding bird surveys shall take place annually between March and June inclusive, to encompass the breeding season for various species of birds. The results shall be used to identify any potential nesting

bird constraints. More frequent specific surveys shall be carried out as required around working areas to locate nest sites of Schedule 1 and ground nesting birds. A Natural England Schedule 1 bird disturbance licence may be required for this activity.

F7.2 Ecologists shall provide a watching brief in all areas thought to be occupied by breeding birds. If breeding birds are present, measures shall be taken to avoid disturbance. These shall include the creation of an exclusion zone to avoid the area, or the delay of construction activities until the end of the breeding bird season (or fledging of juveniles in the event that individual nest sites are identified). A marker fence shall be erected at a suitable distance from the nest-sites of any bird species. Marker fencing shall also be erected in un-cleared grassland close to working areas if ground-nesting birds are present, to prevent contractors accessing these areas.

F7.3 All potential breeding habitat shall be cleared between September and February prior to and after breeding season has ceased. Outside this period, clearance work shall immediately follow a thorough checking survey to identify active nests which, if found, shall be left undisturbed.

F7.4 Once the vegetation is cleared and the ponds or ditches have been infilled, construction works shall either commence immediately or the cleared ground shall be managed to minimise its attraction to the majority of breeding birds by regular blading away of any vegetation growth by mechanical means outside of the breeding bird season. The construction area to be developed shall also be marked out/fenced and a series of posts and highly coloured, reflective mirrors and/or tape with trailing markers/streamers used to criss-cross the construction sites. Physical exclusion may also be provided by the installation of netting to exclude birds from the development site as long as the netting is of a coarse gauge to ensure birds do not get tangled.

F7.5 An experienced ornithologist shall check the cleared areas for ground nesting birds if works are to occur in the breeding season.

F7.6 Appropriate measures shall be taken to deter birds from breeding in any areas of suitable bird breeding habitat where construction is likely to start during the breeding bird season. This will specifically include habitat management to minimize the risk of suitable habitat being present for breeding. The situation shall be monitored closely, and further action shall be taken if required such as audio and visual bird deterrents and the use of agricultural bird scarers or kites, balloons, scarecrows and raptor decoys.

F8 Wintering Birds

F8.1 Work directly affecting wintering waterfowl habitat shall be avoided between October and March.

F8.2 In order to avoid disturbance of wintering birds, noise arising from construction works during the months of October to March inclusive, as observed within the closest part of the designated ecological sites, shall not exceed the construction noise thresholds set out within Section D7.7.

F8.3 Construction vehicle speeds across the Site shall be limited to 20 mph.

F8.4 Construction workers shall be made aware of the sensitivity of wintering birds and how to minimise disturbance during their induction process.

F9 Plant Species

F9.1 All scarce plant species discovered during the clearance of the Park have been translocated to a nursery on Northern Triangle East and Site A Habitat Enhancement Area.

F9.2 A survey by a qualified ecologist shall be undertaken on undeveloped plots with the potential for scarce plants prior to construction. Any remaining nationally scarce plant species discovered shall be marked out, and protected. Where in the opinion of the qualified ecologist, it considered feasible, best efforts shall be made for successful translocation to a suitable location.

F9.3 Construction workers shall be made aware of the purpose of the fencing during their induction process.

F9.4 When working in or near waterbodies, measures will be implemented to prevent the spread of the invasive water fern (*Azolla filiculoides*) during construction. Machinery, equipment, and clothing will be checked for plant fragments before and after works take place.

G. Water Quality

G0.1 All works shall be undertaken in accordance with standard regulatory practice to prevent pollution.

G0.2 The potential for impacts to occur as a result of on-site storage of materials and contamination of water by oil or other liquids shall be minimised by the following measures:

- Storage compounds for fuels, oils or other liquid chemicals shall be located away from surface water drains wherever possible. They shall have an impermeable base and impermeable bunds and shall not drain directly into the surface water drains. Fuel and oil storage compounds bunds shall have a capacity of at least 110%. Where practical, drainage from storage compounds shall be passed through oil interceptors prior to discharge.
- Spill kits shall be located near to watercourses and within the works compound.
- Drums and barrels shall be stored in designated, banded safe areas within the compound.
- All drums and barrels shall be fitted with flow control taps.
- All drums and barrels shall be properly labelled.
- Small plant such as pumps shall be fitted with drip trays.

G0.3 The potential for impacts to occur as a result of disturbance of silt on land shall be minimised by implementing the following measures:

- All pumped drainage from the construction works, including areas used for temporary storage of construction materials or excavated soils, shall be passed through silt settlement treatment prior to discharge to surface watercourses or drains. Silt settlement treatments may, for example, include straw bales, grassland soakaways and silt settlement lagoons. Balancing ponds shall be at least partially excavated during the early phases of the construction programme to allow them to act as temporary settlement lagoons.
- Any pumping operations shall be carried out on a 'permit to pump' basis.

- Where appropriate, access to watercourses shall be bunded to prevent contamination from surface water run-off.
- All roads and hard-standing shall be kept clean and tidy to prevent the build-up of oil and dirt that may be washed into a watercourse or drain during heavy rainfall
- The use of water spray to reduce dust or wash down construction areas shall be carefully regulated to avoid washing substantial quantities of silt etc. into the watercourses or surface water drains. Where large quantities of gravel, mud or other such material require cleaning, the area shall be swept clean prior to any subsequent hosing down.

G0.4 Foul water from welfare facilities shall be sumped and pumped out for offsite disposal at an appropriate facility.

G1 General Construction Control Measures

Silt and Suspended Solids

G1.1 The following control measures shall be put in place to manage silt generation.

- Excavations: Where possible water shall be prevented from entering excavations using cut off ditches to prevent entry of surface water and groundwater.
- Exposed ground and stockpiles: The amount of exposed ground and soil stockpiles shall be minimised. Silt fences shall be constructed from a suitable geotextile to reduce silt levels in run-off water. The height of stockpiles of material for reuse shall be minimised to avoid damage to the soil structure. Spoil and temporary stockpiles shall be positioned away from watercourses and drainage systems. Surface water shall be directed away from the stockpiles to prevent erosion at the base.
- Pumping: Pumped discharges shall be made using a pump of suitable size and at a rate which shall not cause erosion or disturbance to the bed of the watercourse (see disposal of waste water section below).

Concrete & Cement

G1.2 The following control measures will be put in place:

- Concrete & Cement Operations: Operations shall be carefully controlled and supervised at all times to minimise the risk of any materials entering watercourses.
- Concrete & Cement Washout: Washing out and cleaning of concrete batching plant or ready mix lorries shall be carried out in a contained area as far from watercourses as practicable. The area shall be appropriately bunded and segregated to prevent the escape of contaminated water into a watercourse.
- On-site concrete production: Careful initial siting of concrete mixing/batching facilities is vital. A settlement and recirculation system for water reuse shall be provided to minimise the risk of pollution and reduce water usage.

Oil & Chemical Storage & Use

G1.3 All oils and chemicals shall be stored and handled in an appropriate manner to prevent leaks or spills to surface water or groundwater.

G1.4 All storage tanks, buildings, ancillary handling facilities, filling, drawing and overflow pipes shall be enclosed within an impervious bunded area of at least 110% of the tank capacity.

G1.5 The measures in the EA's Pollution Prevention Guidelines for Above Ground Oil Storage Tanks (PPG2) or latest equivalent guidance shall apply. Whilst the PPG previously maintained by the EA has been withdrawn, it remains available on the Government's national archives and is still considered a relevant source of good practice guidance alongside resources under GOV.UK including Oil storage regulations for businesses and Pollution prevention for businesses.

G2 Disposing of wastewater from site

G2.1 The most appropriate method of discharging wastewater from site without adverse environmental impact shall be used. The option that is most appropriate to a specific operation will be dependent upon the following factors:

- The quantities of water involved;
- Whether areas are available for storage and treatment;
- The level of suspended sediment in the water;
- The characteristics of the sediment; and
- Whether the wastewater is likely to be contaminated.

Site dewatering

G2.2 Dewatering activities shall comply with Environment Agency and other regulatory requirements related to dewatering. Under certain circumstances an Environmental Permit may be required from the Environment Agency and treatment of water prior to discharge may be required.

G2.3 Pumping to soakaways or grasslands is not permitted.

Pump to tanker for off-site disposal

G2.4 If there is no alternative option, contaminated wastewater shall be tankered off-site by an appropriate contractor for disposal as a hazardous waste. Temporary welfare facilities shall include appropriate foul sewage storage for subsequent removal and disposal off-site.

G3 Water Quality Monitoring

G3.1 Watercourses shall be visually inspected daily to identify whether there have been any changes in water quality during construction operations. The aspects to be inspected are:

- Colour;
- Odour;
- Suspended solids; and
- Presence of oily films and discolouration.

G3.2 Where problems are identified it may be necessary to carry out more detailed scientific tests to determine the extent of the problem and treat as necessary.

G3.3 Visual monitoring of all wastewater discharged shall be undertaken as best practice. Chemical analysis shall be required when discharging water in line with an environmental permit.

G4 Drainage Pollution Control Measures

G4.1 Contractors shall ensure the ready availability of equipment to contain spillages, including oil booms, drain blockers and dams to contain soluble pollutants.

G4.2 The measures in the EA's Pollution Prevention Guidelines for the Use and Design of Oil Separators (PPG3) or latest equivalent guidance shall be adopted on-site. Whilst the PPG previously maintained by the EA has been withdrawn, it remains available on the Government's national archives and is still considered a relevant source of good practice guidance.

G4.3 All re-fuelling and maintenance works during the construction phase must be undertaken off-site where possible. If this is not possible then an appropriate area of hardstanding, in line with the recommendations for construction compounds and storage must be provided.

G5 Water Demand Management Measures

G5.1 In order to help minimise water demand during the construction phase, an analysis of the key sources of demand for mains water shall be undertaken and an estimate of their associated costs for the duration of the project using mains supplies calculated.

G5.2 Processes to be considered would include:

- Concrete-batching.
- Bentonite-batching.
- Pressure cleaning.
- Grit blasting.
- Damping down.
- Wheel-washing.
- Block toilets and basins.
- Block showers and changing facilities.
- Canteen facilities.

G5.3 Where temporary accommodation and facilities are to be used during construction, suppliers shall calculate the costs and benefits of supplying more water-efficient fixtures, fittings and systems as standard. Contractors are:

- Encouraged to fit in-line water purifiers in preference to bottled water. Other recommended practices are as follows:
- Make sure that taps are not left running or dripping.
- Fit controls to existing systems including self-closing taps, flow regulator/restrictors and trigger-operated spray guns & hoses.
- Investigate opportunities for re-using process water, e.g. from wheel wash area.
- Check equipment and systems periodically for leaks and insulate pipes to prevent against frost damage.

H. Dust

H0.1 During periods of dry and windy conditions, surfaces shall be damped down to minimise the volume of dust being generated and transported.

H0.2 The dust control methods shown in Table 6 shall be employed as appropriate.

H1 Haulage Routes

- Haulage routes shall be sited away from any sensitive sites.
- Heavily used areas shall be paved where possible, and swept regularly.
- There shall be a length of paved road prior to the exit from site.
- The width of haul roads shall be kept to a minimum width of 7m to reduce the surface area from which dust can be produced.
- Paved access roads and public highways shall be regularly swept using a road sweeper as required.
- Speed limits for site traffic shall be kept to a minimum (20mph) and enforced to minimise dust production.

Table 6 Dust Control Methods

Activity	Possible Dust Control Methods
Soil handling & excavation	Restrict the duration of the activity where possible. Seal and seed storage mound surfaces where possible. Where possible protect surfaces from winds until disturbed areas are sealed and stable.
Laying granular materials	Use water sprays
Material storage	Dampen material. Protect from wind and store under cover where possible.
Transport by vehicle within and off-site	Restrict vehicle speed. Water un-surfaced roads and paved roads Wheel or body wash at an appropriate distance from the site entrance. Load and unload in areas protected from the wind wherever possible. Minimise drop heights. Sheet or cover loaded vehicles wherever possible, Use water sprays/spray curtains to moisten material wherever possible. Sweep/wash paved roads. Use paved roads where practicable. Demolition and construction vehicles conform to at least Euro III standards.

H2 Demolition

- Enclosed and dampened chutes shall be used for dropping demolition waste to ground level.
- Buildings shall be screened with suitable screens and sheets to minimise airborne material.
- Asbestos shall be removed by a registered specialist prior to demolition.
- Bird droppings and other biological matter shall be removed prior to demolition.
- Crushing plant shall be sited away from sensitive areas.

H3 Plant

- Site egress shall be monitored by a banksman and vehicles will not be permitted to exit the site where there is potential for mud and debris to be tracked onto the public highway network.
- Exhausts shall not discharge directly to the ground.
- Plant and equipment shall, where at all possible, be operated away from sensitive receptors near to the site.
- Any mobile plant that is used on site shall be appropriately licensed and operated within its design capacity.
- Any mobile crushing plant being used on site needs to have the appropriate environmental permit.

H4 Earthworks & Excavations

- Temporary or complete earthworks shall be sealed or re-vegetated as soon as possible.
- Earthworks shall be kept damp during dry periods of working.

H5 Materials Handling & Storage

- Account shall be taken of prevailing wind/sensitive receptors when locating stockpiles to minimise dust generation and impact.
- Stockpiles shall be kept to a practical height with gentle slopes.
- Stockpile surfaces shall be compacted and bound.
- The amount of time materials are stored on site shall be kept to a minimum.
- Waste or excess material shall be removed from the site as soon as practical.
- Long-term stockpiles shall be protected from wind erosion by screens, wind barriers, capping, vegetation or other effective methods.
- Loose stockpiles can be stabilised with binding agents to reduce wind erosion, however consultation with the Environment Agency is necessary in advance of binders being used.
- Dry or fine materials shall be stored in an appropriate location, such as inside a building or covered/sheeted bay.
- Material handling operations shall be kept to a minimum.
- All dust generating materials shall be delivered under tarpaulin covers.
- Spillages shall be cleared away as soon as possible if they occur using wet handling methods.
- Methods and equipment for cleaning up spillages shall be in place at all times.
- Vehicles carrying loose materials shall be adequately sheeted or contained during travel along site roads and upon leaving the site. Un-sheeting shall only be permitted in designated areas.

H6 Concrete Batching & Pouring

- Large quantities of concrete or bentonite slurries shall be mixed in enclosed areas.
- Dirt in formwork shall be vacuumed rather than blown out prior to concrete pours.
- Concrete pours shall be kept clean once they have gone off.
- Cement or other powder materials shall be delivered by bulk tanker and transferred to silos fitted with particle filtration systems.

- Silos shall be equipped with filters to remove dust from venting air and fitted with alarm systems to warn of overfilling or the failure of dust arrestment systems.

H7 Cutting/Grinding/Grouting/Packing

- Cutting and grinding on-site shall be kept to a minimum.
- Dust extractors or wet cutting shall be used when using concrete/stone cutters and saws.
- Standard angle grinders and disk cutters with no dust control shall not be used on site.

H8 Hot Bitumen Processes

H8.1 If hot bitumen processes are to be used during construction, best-practice measures shall be employed to minimise the production of fugitive black smoke emissions during operations. Such measures should include:

- Avoiding the overheating of bitumen;
- Covering pots and tanks when practical to do so;
- Extinguishing small fires immediately;
- Minimising and clearing up spillages; and
- Care to be taken during 'torching'.

H9 Damping Techniques

H9.1 A fine spray of water shall be used and applied regularly, especially during warm and sunny weather. The following shall be sprayed:

- Unpaved work areas subject to traffic or wind.
- Structures and building during demolition.
- Sand, spoil and aggregated stockpiles.
- During the loading and unloading of dust generating materials.

H10 Preventing Emissions and Odours

Vehicles & Plant

- Low emission plant and vehicles shall be used.
- Vehicles and plant used on site shall be well maintained and regularly serviced.
- All vehicles shall comply with MOT emissions standards at all times.
- Deliveries to site shall be controlled to minimise queuing.
- All engines shall be switched off when not in use.
- Refuelling areas shall be located away from sensitive receptors.

Additional measures

- Waste materials shall not be burnt on site.
- Waste shall be enclosed in a covered container and removed frequently.
- Organic waste shall be removed before it begins to decompose.

Chemicals on site

- Weather conditions shall be accounted for when planning activities that produce any aerosols, fumes, odours and smoke.

I Noise and Vibration

10.1 Best practical means of controlling noise and vibration shall be employed for all works in accordance with BS 5228:2009+A1:2014: 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise' and 'Part 2: Vibration'.

10.2 If any construction activities have to be planned to take place outside core working hours (see Para B6.1) and/or have the potential to result in a construction noise level exceeding the levels set out in Table 2 (Section B6), these works shall only take place in accordance with a licence provided by the Environmental Health Authority pursuant to Section 61 of the Control of Pollution Act 1974. As part of the application, the Contractor shall demonstrate that the proposed works incorporate best practical means of noise control with the aim of not exceeding the limits within Table 2.

10.3 Contractors and employees shall be made aware of the requirements to restrict construction noise from the Site. This shall include the following:

- Where practicable, ensuring the use of quiet working methods, the use of the most suitable plant, reasonable hours of working for the most noisy operations, and economy and speed of operations.
- Controlling noise and vibration at source and limiting the spread of noise.

10.4 If noisy processes cannot be avoided the following measures shall be employed wherever practicable:

- Increasing separation distance between source and receiver if possible.
- Screening through barriers or other structures (such as site buildings).
- Management of timing of site operations.

10.5 Whilst the volumes of construction traffic may not be able to be reduced, careful attention shall be paid to the routing and timing of construction traffic.

10.6 Measures to maintain good community relations shall include informing local residents on progress and the measures employed to minimise the potential for adverse effects due to construction noise.

11 Noise Control Measures

11.1 The following control measures shall be implemented:

Plant

11.2 Plant shall be selected to minimise noise and vibration where feasible. The following should be considered:

- All plant shall conform to relevant standards and directives for noise emissions as stated above.

- Noise control equipment, such as enclosures, shrouds and silencers, on plant shall be fitted and used properly when in use.
- The fuel source for the plant shall be considered; electrically powered plant is often quieter than diesel or petrol driven plant.
- All plant shall be operated correctly.
- All plant shall be turned off when not in use.
- All plant shall be regularly inspected and maintained.
- Rotation, impacting or percussive machinery shall be fixed on anti-vibration mountings.
- Wherever practicable, noisy plant or processes shall be substituted with less noisy alternatives and shall be carefully sited to minimise noise propagation to the nearest noise-sensitive receptors.

Screening

11.3 Temporary screens shall be used, where feasible and appropriate, to reduce noise propagation to the nearest noise-sensitive receptors such that the noise limits within Table 2 are not exceeded. Temporary screen shall be a solid hoarding (minimum mass per unit area of 7 kg/m²) of minimum height 2 m and shall be positioned along the nearest plot boundary to the noise-sensitive receptor.

12 Monitoring

12.1 Construction noise levels shall be monitored regularly by a suitably qualified person appointed specifically for the purpose, and in particular during the critical phases of construction, such as piling, or when significant changes in construction method or plant are introduced such that the potential for adverse effects due to noise is increased. The required locations and intensity of noise monitoring shall vary depending on the construction phase and location of the works. As a minimum, when there is a potential for adverse effects, noise monitoring shall be undertaken on a weekly basis at positions representing the nearest sensitive receptors to the site. Noise measurements shall be taken to verify that noise arising from construction works does not exceed the limits within this Code of Construction Practice. If limits are exceeded, or complaints received, then these shall be investigated by the relevant works Contractor and actioned appropriately.

12.2 Best Practicable Means (for example appropriate mitigation and sensible use of site equipment) shall be employed so the effects of construction noise on ecological receptors are not significant. The results of the weekly noise monitoring shall be submitted to the EAG on request. As noted in paragraph F8.2, construction noise levels shall not exceed the thresholds set out within Section D7.7. If noise monitoring demonstrates that these thresholds are exceeded, then work shall stop immediately and the timing or method of working amended such that the potential for adverse effects on ecological receptors is effectively reduced.

J. Archaeology

J1.1 No protected archaeological sites or historic landscapes are present within the LDO2 area. The site nevertheless has potential for archaeological remains, deeply buried within floodplain deposits, as detailed in baseline studies including a geological 'Deposit Model' (Oxford Archaeology, February 2012, A Multi-Disciplinary Investigation of the Sediments at the London Gateway Site, Essex: Geophysics, Palaeoenvironment and Dating, Final Deposit Model Update). Areas of high archaeological potential, based on the 'Deposit Model', are shown on Figure 6.

J1.2 In the majority of cases it is expected that construction activities undertaken within the parameters established by the LDO2 Design Code will not have a significant impact on archaeological sites due to the planned thickness of artificially raised ground covering the site. The latter comprises existing made ground laid during development of the former Shell oil refinery and ground-raising permitted under the LDO1 and LDO1.5.

J1.3 Wherever possible, any archaeological remains shall be preserved in situ through sensitive design and where this cannot be achieved any remains shall be investigated and recorded.

J1.4 Before construction takes place, groundwork designs of all types shall be assessed and a professional opinion provided by a suitably qualified and experienced archaeologist (a full Member of the Institute for Archaeologists) to determine whether formal assessment is required.

J1.5 Construction and drainage features that penetrate below the base of artificially raised ground into alluvial deposits shall in all cases be subject to formal assessment based on a comparison of finalised design drawings with the archaeological 'Deposit Model'. Features requiring assessment include (but are not limited to) drainage installations and other buried services, piled foundations, strip foundations, ponds and swales, and areas of deep ground mixing.

J1.6 Features that do not penetrate below the base of artificially raised ground shall not require archaeological investigation.

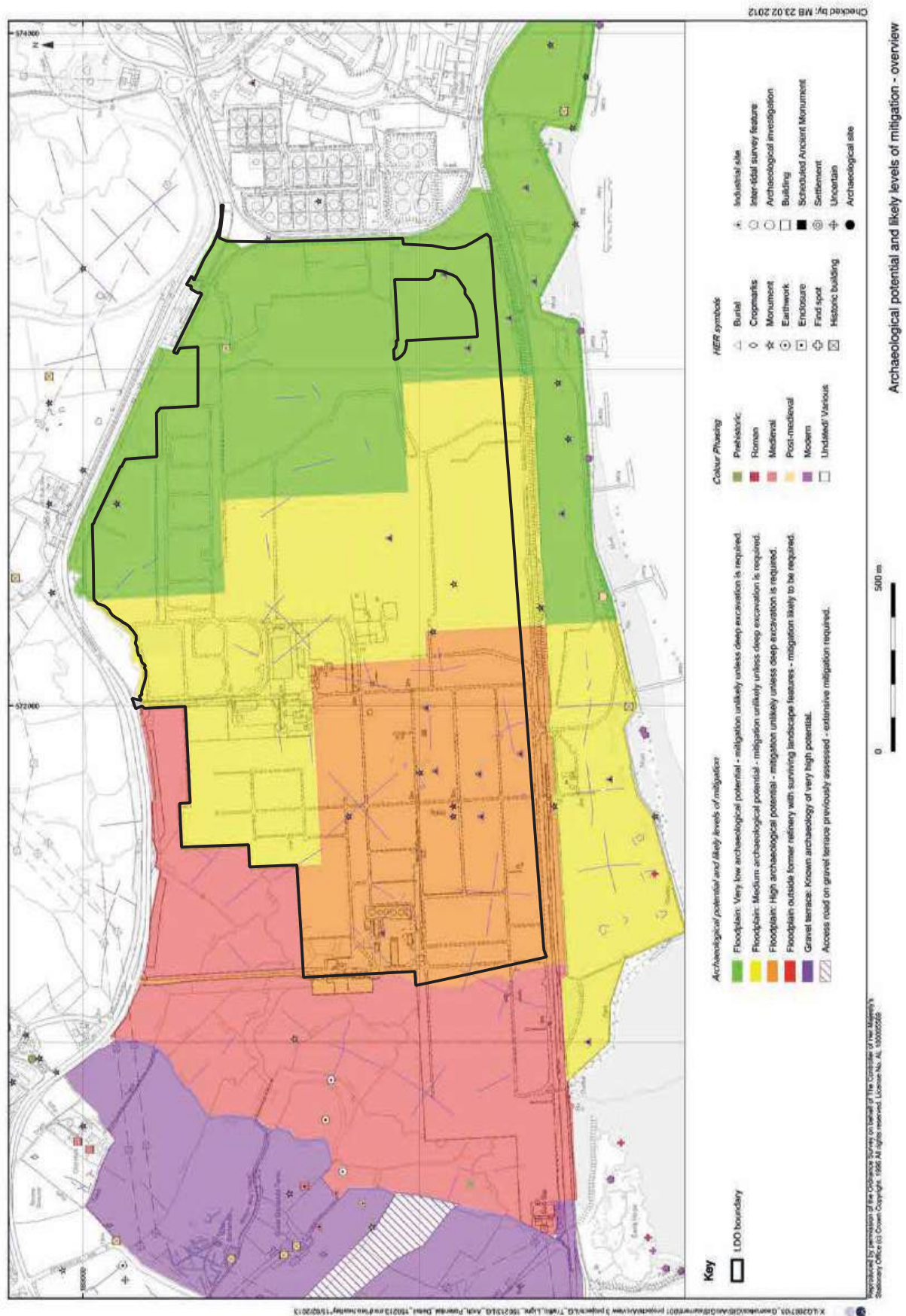
J1.7 Piling will not normally require archaeological investigation, although unusually dense piling schemes in archaeologically sensitive areas may trigger a requirement for investigation.

J1.8 Where preservation in situ is not feasible, investigation shall be required to identify any significant archaeological remains within the affected area and preserve them by record. Preservation by record may comprise monitoring during construction, trench investigation or other appropriate methods agreed with the relevant local authority archaeological advisor.

J1.9 The professional opinion, archaeological assessments and any investigation proposals arising shall be submitted for approval by the local authority archaeological advisor in advance of the LDO prior notification process in the form of an Archaeological Project Design (APD). The local authority archaeological advisor shall have no more than 15 working days to consider the APD. If no response is received by 5pm on day 15, the APD shall be deemed to be acceptable. A short format APD is suitable for documenting the assessment process where no investigation is deemed necessary. Where investigation is required a full APD shall be produced, including a greater level of site specific information commensurate with the scale and archaeological significance of the investigation. As a minimum the following information shall be included in APDs:

- Principal contractor/ client name
- Plot name
- Contract reference
- OS grid reference
- Planned period of construction work
- Summary description of works
- Planning background: Standardised text for LDO2 area
- Archaeological baseline summary: Standardised text for the LDO2 area can be used in the short format APD
- Heritage baseline data drawing: (not required for short format APDs)

Figure 6: Areas of High Archaeological Potential



- Heritage baseline data reports: List of relevant baseline report references
- Archaeological Assessment: Identification of the importance of the archaeological resource at the specific location
- Impact Assessment: Description of the anticipated impact of the proposed groundworks on the archaeological resource
- Construction design drawings consulted: List of design drawings consulted in making the assessment
- Archaeological requirements: Identification of specific measures proposed to either preserve archaeology in situ or preserve it by record.
- QA sheet: To be signed by the archaeological specialist, local authority archaeological advisor and client/ principal contractor representative at the following stages: a) acceptance of the APD; b) completion of any archaeological requirements; c) completion of interim report where relevant; d) completion of final report and archive deposition requirements where relevant (short format APDs require signature at stage a) only).

K Landscape and Visual Characteristics

K1.1 Control of waste and good housekeeping shall reduce any visual impacts from windblown material.

K1.2 Existing mature trees and hedgerows shall be protected in accordance with BS 5837:2012 Trees in relation to Design, Demolition and Construction-Recommendations.

K1.3 The artificial grass pitch (AGP)/multi use games areas (MUGA) should be no closer to trees than a distance equivalent to at least the potential height of the tree and its potential canopy width. Where this is not possible, construction can take place above the tree roots by using 'cellular web' sheeting, which is placed onto the soil, pinned in place and filled with stone ('non-dig' construction).

Lighting

K1.4 The type and level of lighting provided will be dependent on the particular construction activities in progress. Lighting shall be in general accordance with BS EN 12464-2:2014 Lighting of Work Places (Part 2 – Outdoor Work Places). In particular Table 5.3 of that standard relates to building sites and recommends minimum lighting levels for construction areas to have an average illuminance of 50 lux with 40% uniformity.

K1.5 As a minimum, lighting will be likely to be required during the winter months and may also be required during the night depending on construction activities, programme and permitted working hours. When construction operations are undertaken at night, temporary lighting shall be provided in accordance with the HSE requirements. Typically the contractor will employ mobile tower floodlights powered by a diesel generator. These units can typically extend the mast to a height of between 5m-9m and are equipped with 4 or 6 1000W metal halide floodlights. The general lighting shall be supplemented where necessary with local task lighting.

K1.6 Monitoring of the temporary lighting installations shall be undertaken to ensure correct aiming angles are being achieved, and appropriate modifications made where necessary, should undue light spill or glare on human or ecological receptors be identified.

K1.7 Possible sources of obtrusive light are:

- Light trespass – light spilling beyond the boundary of the site on which a light is located.
- Glare – the uncomfortable brightness of a light source when viewed against a darker background.
- Sky glow or upward light produced from poorly controlled or aimed lighting.

K1.8 Consideration shall be given to the location and angle of site lighting to minimise the potential for obtrusive light to impact upon sensitive receptors.

K1.9 The following best practice measures shall be implemented:

- Lights shall where practicable, be positioned facing away from sensitive receptors. Where this is not possible lighting units will be placed in such a way that obtrusive light is minimised. Unless health and safety requirements dictate otherwise, no lighting shall be directed to face towards any sensitive receptor.
- All luminaires used around the perimeter of the site shall be mounted within the site, so that the main photometric distribution of the luminaire will be towards site works, keeping all light within the boundary of the development and preventing artificial light spilling outside of this.
- All artificial lighting used during the construction phase shall be directed below the horizontal to prevent unwanted upward light.
- Where necessary glare shields, baffles and cowls shall be used to control and minimise light distribution.
- Modern, high efficiency lamps and luminaires shall be employed throughout the site to be as energy efficient as possible.
- Illuminance levels shall be designed in accordance with BS EN 12464-2:2014 Lighting of Work Places and the areas shall not be overlit.
- When not in use all artificial lighting used for demolition or construction shall be extinguished; this shall include periods outside of normal site working hours.
- Any security lighting shall be kept to a minimum at all times.
- Checks shall be made each evening to ensure no lights are left on in error.
- Any complaints relating to obtrusive light shall be fully investigated by the site management company.

Appendix 1:
DP World London Gateway Logistics Park Incident
Management Plan

Emergency Management System

DP World London Gateway Logistics Park Incident Management Plan

Document Reference: HSMS-ERP-0004

Document Owner: Head of Estates

Revision History:

Version	Date	Reason for change	Author
FINAL	05 May 2019	Updates by LG	Nick Orbell
Update	02 June 2020	Post exercise review updates	Nick Orbell
v.2	March 2022	Updates following IMT exercise 16/11/21 and development of LGLC Incident Management Plan.	Sonia Peirson
v.2 FINAL	6 September 2023	Final version	Sonia Peirson

Approvals:

This document requires the following approvals.

Name		Title	Date	Version
Oliver Treneman		Head of Park Development	6.9.2023	2

Location/Distribution:

This document is issued to the following people:

- LGLP Incident Management Team (see paragraph 4.3.2)
- Incident Commanders of the LG Site Incident Management Team
- The plan, and associated documentation, is also stored securely in the following locations:
- LGLP Emergency Control Centre locations listed at paragraph 4.3.3 and;
- LG Park folder at O:\Park\11.0 Park SHES\Emergency Plans.

This document is a Regulation at the London Gateway Logistics Park.

1. Purpose

The purpose of this plan is to improve the capacity of DPWLG to manage disruptions to operations, thereby reducing both the impact on customers and other stakeholders, and unnecessary costs. Specifically, this plan deals with the response at a local level for London Gateway Logistics Park (a map of the park is at Annex A): Ref A details the DPWLG corporate Emergency Management System.

2. Scope

The scope of this plan is to establish local incident management arrangements for the LGLP during a disruptive incident, within the overall DP World Emergency Management System (Ref A), in order to minimise the impact on Tenants, staff, operational partners and other stakeholders. Effective incident management improves the long-term prospects of the organisation by giving shareholders and customers the confidence that DPWLG is a corporate group that they can rely upon.

No1 London Gateway is outside the LGLP, so the physical recovery of this facility is outside the scope of this plan and falls under the Port Emergency Response Plan.

Definitions

Annex - an attachment to this document which is reviewed and updated as part of the maintenance cycle at paragraph 7 of this plan.

DP World London Gateway (DPWLG) – a group of companies comprising London Gateway Port Limited, London Gateway Logistics Park Development Limited; LG Park Freehold Limited and LG Park Leasehold Limited.

DP World London Gateway Logistics Centre (LGLC) – a multi-occupancy office and warehousing facility located at the junction of Atlantic Avenue and North Sea Crossing.

EMS - DP World London Gateway Port Emergency Management System.

First or Initial Responder - the responsible person who receives first notification of an incident or becomes aware of an incident (in most situations likely to be Mitie Security Limited).

Incident Controller – the responsible person who initially takes charge of the incident on site.

Incident Commander – the person who leads the **LG Site Incident Management Team**.

LG Port – the operational area of DP World London Gateway Port.

LG Site - LG Port and No1 London Gateway building.

LGLP Security Staff - employees of the third-party security contractor (Mitie Security Limited) employed by LGLP.

LGLP Incident Management Team (LGLP IMT) – as described in paragraph 4.3.1.

LG Site Incident Management Team (LG Site IMT) – IMT responsible for the LG Site

London Gateway Logistics Park (LGLP) - the area of land and built estate and infrastructure as shown at Annex A.

Principal Contractor – a contractor directly employed by DPWLG working on LGLP.

Ref - a relevant DP World document referred to in this plan (see list in paragraph 0).

Tenant - a commercial occupier of property at LGLP.

3. Incident Response

4.1. Invocation of the LGLP Incident Management Plan

The requirement to invoke this plan may arise from a wide range of disruptions, including the following (see flowchart at Annex B):

Incident Type	IMP Doc	Date
Fire in Tenant area, LGLP managed area, or construction site	Annex E	Aug 2022
Road traffic incident	Annex E	Aug 2022
Casualty in LGLP controlled area	Annex E	Aug 2022
Spillage and escape of substance on road network (excluding Tenant sites)	Annex E & I	Aug 2022
Flooding	Ref C	July 2022
Criminal activity, including unwanted persons on site	Annex E	Aug 2022
Major utility failure - power	Annex E	Aug 2022
Extreme weather	Annex F	Aug 2022
Major incident on neighbouring site (LG Port, Shell)	Annex E	Aug 2022
Incident affecting No1 London Gateway (including Control Room)	Annex E	Aug 2022
Uncontrolled social media	Annex E	Aug 2022

Any of the above, or other instances of serious disruption, should be reported immediately to the **No 1 Security Control Room (0800 121 6830)**. In particular, tenants/contractors must inform the Control Room if they have called for any Emergency Services, so as LGLP Security staff can ensure that gates are unlocked and that they are escorted to the scene. The Control Room will inform one of the designated Incident Controllers who can then activate the relevant call-out procedures if necessary.

A checklist for immediate actions in the event of an incident is contained at Annex C. **In the case of an actual or suspected “4” or “5” incident; a Serious Incident Notification must be made as per EMP Ref B.**

All information received and actions taken from this point should be logged: a template for logging information received and actions taken is at Annex D.

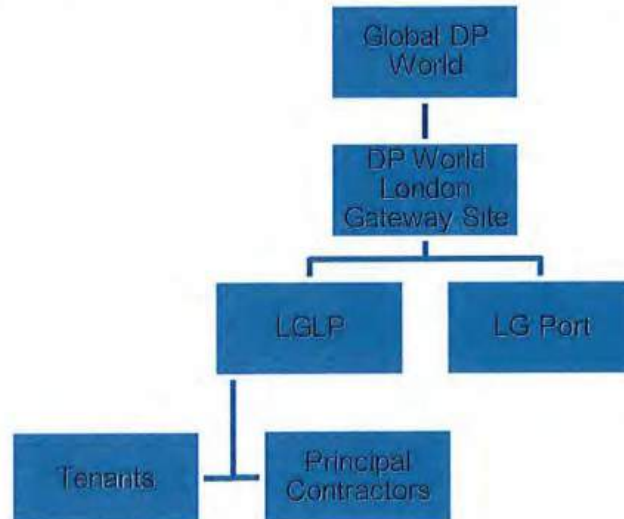
4.2. Methods of invocation

Specific incident responses may be invoked as follows prior to the formal establishment of the LGLP IMT:

Requirement	Method	Authority to Invoke	Comments
Unrestricted public notification of incident required	DPWLG website, local media (including BBC Radio Essex)	Senior Exec (in accordance with EMP)	<u>Must be</u> invoked via LG Port Communications Manager
LGLP Tenant / occupier communication	SMS (also email and phone)	Incident Controller	
DPWLG Staff only communication	Email	Incident Controller via LG Port H&S Manager or Harbourmaster	Manage via DPWLG Communications Manager if possible
Blue Light Services	Phone / verbal	Incident Controller or Initial Responder	Additional actions required in EMP

4.3. Incident Response Structure

The DP World Emergency Management System (EMP Ref A) comprises three planning levels; contractors and Tenants of LGLP constitute a fourth level. This is shown in the diagram below.



Further details of the LGLP IMT are given below.

4.3.1. LGLP IMT

The LGLP IMT is established to coordinate the response across LGLP. Specifically, they:

- confirm appropriate strategies and convert into plans;
- coordinate communications with Tenants and LG Site;
- communicate decisions, actions and plans to Mitie security staff and other operational teams;
- establish measurable objectives and review progress against objectives;
- resolve conflicting requirements between functions for resources;
- liaise with the emergency services and/or local government at the Silver (tactical) level¹; and
- liaise with key suppliers and operational partners.

It should be noted that Business Recovery measures are not within the scope of the LGLP IMT

¹ The LG Site IMT will take on this role if activated (see paragraph 5.6).

4.3.2. LGLP IMT - Roles

The following roles will generally be required in an incident:

Role	Primary	Alternate	Responsibilities
Incident Controller	Estates Manager	Estates Team	Liaison with LG Site and emergency services
Security	Security Superintendent	Operations Manager Mitie	Initial Responder Initial liaison with Tenants. Incident Marshalling Traffic Coordination First Aid
Environment	Senior Environmental Advisor	Environmental Team	Spillages Flooding
Facilities	FM Manager	Park Contracts Manager	Damage assessment, salvage and recovery
LG Port Liaison	LG Port Shift Manager	LG Port Harbourmaster	Liaison with port staff, contractors, vessel staff, neighbouring sites
Communications	LG Port Comms Team, led by Senior Manager – External Relations UK		Internal and external communication
Health & Safety	Senior H&S Advisor	H&S Advisor	Damage assessment, salvage and recovery
People	Head of People, UK	HR and L&D Manager	Liaison with LGLP staff and families
Insurance	Claims & Insurance Manager	Finance & Compliance Officer	Liaison with Insurers. Monitoring costs incurred.
IT	Head of IT	IT Infrastructure Manager	Damage assessment of IT. Liaison with Port VBS. Communication on Information Board.
Log-Keepers	Available persons; Estates Team, Reception Team, Others		Maintaining an accurate record of information received, decisions taken and actions completed.

4.3.3. Emergency Control Centres

The LGLP IMT will normally meet at one of the following locations:

- Vancouver Meeting Room, No 1 London Gateway; or

- RC Desk/Control Room, Third Floor, Terminal Building LG Port.

If an off-site meeting location is required, the following are possible venues (subject to availability):

- First Intervention Team, The Manorway, Stanford-le-Hope, SS17 9LQ;
- Orsett Hall, Prince Charles Avenue, Orsett, RM16 3HS;
- The Bell Inn, High Rd, Horndon on the Hill, Stanford-le-Hope, SS17 8LD; and
- Premier Inn, High Rd, Fobbing, Stanford-le-Hope SS17 9NR.

In circumstances where it is not practical for the LGLP IMT to meet face-to-face a "Virtual IMT" can be convened via Microsoft TEAMS. MS TEAMS call can be set up via Outlook calendar.

(Note. call leader needed, generally Incident Controller or person initiating TEAMS.)

An Emergency Pack is contained in an LGLP Emergency box located in the Vancouver Meeting Room (key held at LG reception).

4.3.4. Logging

It is essential that an effective log of information received and decisions taken is maintained throughout the incident; a log sheet format is attached at Annex D. The log must start from the moment the Initial Responder is involved.

4.4. Welfare

4.4.1. Accounting for Tenants in LGLC

In the event of an incident at LGLC, tenants are responsible for sweeping their area of the building and directing staff and visitors to the muster point (see Ref E). LGLP Estates Staff (during normal working hours) or LGLP Security Staff (outside of normal working hours) will coordinate with tenants at the muster point to account for all personnel and liaise with the Emergency Services. Further guidance for this Liaison Officer role is contained in Ref E.

4.4.2. Shelter

Following an evacuation of LGLC:

- If No 1 London Gateway is safe to enter, tenants will normally be guided to the canteen on the ground floor for shelter and refreshments; or
- If No 1 London Gateway is not safe to enter, consider the use of Orsett Hall or The Crooked Billett in Stanford-le-Hope.

4.4.3. Practical Assistance

In the event of an evacuation of No1 London Gateway, it is likely staff may be unable to access personal cars in the car park. The general expectation is that LGLP staff will make their own arrangements to get home after an evacuation; reasonable expenses (e.g. taxi, hotels) will be reimbursed on production of receipts in line with normal policies. If individual staff members have particular difficulties, then the LGLP IMT will assist.

4.5. Pre-Planned Responses

Pre-planned responses have been developed, supported by appropriate training and exercising, for the following forms of disruption. The detailed procedures are contained in Annexes or as References to this plan. Note also that combinations for all gates on LGLP are contained at Annex H.

4.5.1. Traffic Control (Annex E)

There are two separate procedures for dealing with road traffic accidents: (a) one for an incident in a Tenant-controlled area; and (b) one for an incident in a DPWLG-controlled area.

In any situations requiring traffic control, LGLP Security staff take the lead in directing traffic and liaising with the emergency services when their help is required. If additional resource is required:

- Staff from LG Port can assist with deploying signage;
- Landside Marshalls may be redeployed from LG Port (subject to Port requirements); and
- Requests can be made to Mitie Security or alternative security company for additional staff if required.

In the event of serious congestion, the IMT may instruct LGLP Security staff to open Gate 2 for the purposes of:

- Emergency Service access;
- Getting vehicles off the Park; and/or
- Improving access to LGLC.

In extreme cases, the IMT may instruct LGLP Security staff to open Gate 1 for Emergency Service access only.

4.5.2. Casualties (Annex E)

There are three separate procedures: (a) one for an incident in a Tenant-controlled area; (b) one for an incident in a principal contractor-controlled area; and (c) one for an incident in a DPWLG-controlled area. Tenants and principal contractors are responsible for providing first aid in the areas that they control and LGLP Security Staff provide first aid in DPWLG-controlled areas. If the Emergency Services are required, LGLP Security Staff will meet them and escort to the scene.

4.5.3. Spillages (Annex E and Annex I)

A number of measures are in place to prevent contamination from spillages entering the Thames. Principally these consist of:

- Stopping pumping;
- LGLP Security Staff turning off culverts (only available on certain roads); and
- LGLP Security Staff placing stop boards in the swales.

There is also a specific procedure for dealing with a spillage in the lorry park. If Security Staff are unavailable, the LG Port Environment Team can all carry out these tasks; in addition, some A to Z and UNIQUE staff have been trained to assist. In the event of a serious incident, specialist support is available from Adler and Allen.

4.5.4. Operation Stack

LG Port has plans in place (Ref D) for both:

- Minor Op Stack (vehicles still able to enter the port); and
- Major Op Stack (vehicles still able to enter port but under closer control).

Minor Op Stack involves vehicles queuing along Ocean Boulevard up to the junction with Atlantic Avenue. Major Op Stack involves vehicles queuing on Ocean Boulevard, Atlantic Avenue, North Sea Crossing and Baltic Avenue.

4.5.5. Severe Weather (Annex F)

The potential impacts of severe weather on LGLP include:

- loss of access to (parts of) LGLP;
- physical damage to parts of LGLP (or No 1 London Gateway);
- shortage of LGLP staff (or key contractors, e.g. Mitie Security Limited);
- loss of utilities to LGLP (or No1 London Gateway); and
- disruption to one or more Tenants.

Annex F provides guidance on useful sources of information about weather, flooding, transport disruption and school closures; and summarises DPWLG's absence policy in the context of severe weather.

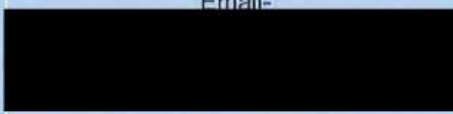
4.5.6. Flooding (Ref C)

The DP World London Gateway Flood Action Plan details the preparations required to reduce flood risk on LGLP, actions on flooding and procedures for clean-up. The site itself is assessed at being at a low risk of flooding and, even if some areas were flooded, it should be possible to shelter on site (e.g. at No 1 London Gateway).

5. Incident Communications

5.1. Detecting an Incident and Alerting Response Personnel

LGLP receives alerts from the following sources:

Type of Incident	Source	Method
Criminal activity	Varied; observed and reported	CCTV to Control Room Phone call to Control Room from Tenant or third party
Riot, civil disturbance, public disorder	Police Port	CCTV to Control Room Phone call to Control Room from Police, Port, Tenant or third party Local media
Severe weather	Met Office Weather Quest	Email to Estates Team Alerts via LG Port to Estates Team
Flooding	Environment Agency	Email to Environment & Estates Team Local media
Disruption to transport	Highways Agency Essex County Council AA	Alerts via LG Port to Estates Team ECC/AA Websites
Incident at Shell storage depot	Shell	Email- 
Road traffic incident	Observed or reported	CCTV to Control Room Phone call to Control Room from Tenant or third party
Personal injury	Observed or reported	CCTV to Control Room Phone call to Control Room from Tenant or third party
Environmental incident	Observed or reported	CCTV to Control Room Phone call to Control Room from Tenant or third party
Op Stack	Port	Notification via Op Stack distribution list.

Response teams are alerted by landline or mobile phone.

5.2. Incident Monitoring

During an incident, individual functions/departments are responsible for assisting, supporting, monitoring and reporting the following information to the LGLP IMT (specific reporting deadlines will be established during the first LGLP IMT meeting).

Function/Department	Information	Comments
Estates	Tenant information records.	Limited remote access is available via OneDrive login by personnel
Security	Blue light co-ordination, LG Port coordination.	Via Control Room / (LG Port Harbourmaster if appropriate)
Facilities	Technical information, O&M manuals, specialist contractor support (e.g. drainage, tankering).	Limited remote access to files is available via OneDrive login. Certain systems have remote login capability.
Environment	Technical and regulatory records, regulator contacts.	Environment Agency must be informed under certain scenarios.
LG Port Harbourmaster	Potential impact on LG Port.	Security Contract Account Manager.
LG Port H&S Manager	EMP compliance and actions.	Escalation, Tier 4,5 liaison.
Communications	Monitoring external media, social media, direct inquiries.	Key monitoring role; see paragraph 5.4.2.

5.3. Internal Communications

5.3.1. Security Team

The Security Team communicate with each other via VHF radio. The IMT have a portable VHF base station and 02 Mobile in order to communicate with the Security Team. Radio Groups are available in Annex J.

5.3.2. Staff

The primary means of communicating with LGLP staff in an emergency will be by phone/SMS/WhatsApp. General information for staff may also be communicated via:

- the DP World Global email system (hosted in London); and
- London Gateway staff intranet website ("QUAY Net").

Contact details for next of kin are held by the DPWLG People Team. **Note. It is the responsibility of the emergency services to contact next of kin in the event of death or serious injury; LGLP staff should not get involved.**

5.4. External Communication

The DPWLG website (www.londongateway.com) will be updated regularly (the LG Port Communications Team can access the content management system remotely via their laptops).

5.4.1. Tenants

The primary method of communicating with Tenants in the early stages of an incident is via SMS. Contact details for all Tenants are also contained at Annex G; these include "Emergency" "HR" and "Communications" contacts (where available).

In the event of a major incident at LGLC, the LGLP IMT will also deploy a Liaison Officer (see above) to LGLC to communicate face-to-face with Tenants. Further guidance for this role is contained in Ref E.

5.4.2. Incoming Calls

The number 01375 648609 is reserved for use as an "Incident Line". Calls to this incident line will be routed to suitable LGLP staff. In the event of an incident:

- The recorded message on the main reception number (01375 648300) will be updated, advising that an incident is in progress and offering callers an option to be transferred to the "Incident Line"; and
- The "Incident Line" number will be published on the DPWLG website.

5.4.3. Media

All media communication will be coordinated by the LG Port Communications Team, who will escalate the details to our Dubai head office or Regional office in London, and will provide a Holding Statement to the IMT. The holding statement will be used for all internal and external communication purposes, and can additionally be recorded on the Park Emergency Phone. The holding statement will contain an outline of the incident that has occurred, any other relevant details at the time, and that further details will be issued on the DPW website.

The Communications Team are supported by New Century Media: contact numbers for key individuals are at Annex C. Staff should be reminded to direct all enquiries to the DPW website.

ONLY THE COMMUNICATIONS TEAM are authorised to make statements on behalf of LGLP. Staff are only authorised to use statements that have been issued by the Communications Team.

5.4.4. Operational Partners

A list of key partners' contact details is provided at Annex C.

5.5. Means of Communication

5.5.1. Phone Lines

Landline phones are dependent on No1 London Gateway being fully functional. If this building has been affected by an incident, then only mobile network access can be utilised.

5.5.2. Email

The DP World Global email system is hosted off-site (in London), so should not be affected by any local disruption at LGLP/LG Port. Most LGLP staff can access DP World email by phone.

5.5.3. Access to IT Systems

LGLP staff have remote access to data on OneDrive (and, in some cases, Norton Rose Fulbright LLP Data Room for contract documents).

5.6. Communication with Emergency Responders

The Bronze/Operational interface with the emergency services is via face-to-face communication with the Security Team Leaders. If liaison is required at the Tactical/Silver level, then the LGLP Incident Controller (or Incident Commander, if applicable) will communicate either face-to-face or by phone. In addition, the LG Port Communications Team will liaise directly with emergency services media teams as required.

In the event of an incident involving London Gateway Port, the Port's Incident Management procedure would be expected to take precedence over the LGLP IMT.

6. Stand-Down

6.1. Procedure for Stand-Down

The LGLP IMT will formally close the incident (in conjunction with the LG Site IMT, if applicable) when it judges that normal operations can be resumed. This will be communicated to all LGLP staff, Tenants and key stakeholders.

6.2. Post-Incident Review

Once normal operations have been resumed, or LGLP is close to this situation, it is important not to lose the opportunity for learning from the experience. A forum to discuss these matters with a brief to identify ways of improving incident management arrangements should be established. **Note that in the case of a “4” or “5” incident, there is a specific corporate investigation process detailed in Ref B.**

Task	Comments	Target Timescale
Appoint inquiry leader	Ideally a director who was not personally involved in managing the incident, or an external facilitator.	24 hours
Set terms of reference	Set out the exact remit and aim of the inquiry.	48 hours
Gather information from those involved	Set a specific date for the submission of feedback. Include external stakeholders.	5 working days
Assess impact on staff	May wish to use the UK HSE stress survey tool, or DPWLG internal welfare resources (Occupational Health nurse).	5 working days
Review data and produce post-incident report	Identify nature and cause of incident. Assess adequacy of management response to incident. Assess adequacy of incident management arrangements in preparing employees for incident. Identify improvements to be made to the LGLP Incident Management Plan. Circulate key findings throughout DP World and share with operational partners as appropriate.	No later than 10 working days [Note DPW requirements for post-incident response]
Update the LGLP Incident Management Plan as required	Inquiry Leader to track agreed actions through to completion.	20 working days post event

6.3. Plan Maintenance, Training and Exercising

Frequency	Task	Responsibility
Monthly	Update LGLP staff contact details	SHES team
Quarterly	Update contact details for tenants (Annex G)	Estates Team
	Update contact details for support partners (Annex C)	Heads of Departments
Annual	Exercise of Flood Action Plan	Environment Manager
	Exercise of plans contained in Annex E	Plan Owners
	Desktop exercises for LGLP IMT	Head of Estates
	Review of LGLP Incident Management Plan	Head of Estates
	Security exercise for LGLP IMT	Security Superintendent
Ongoing	Training of new staff Staff re-familiarisation	Estates team

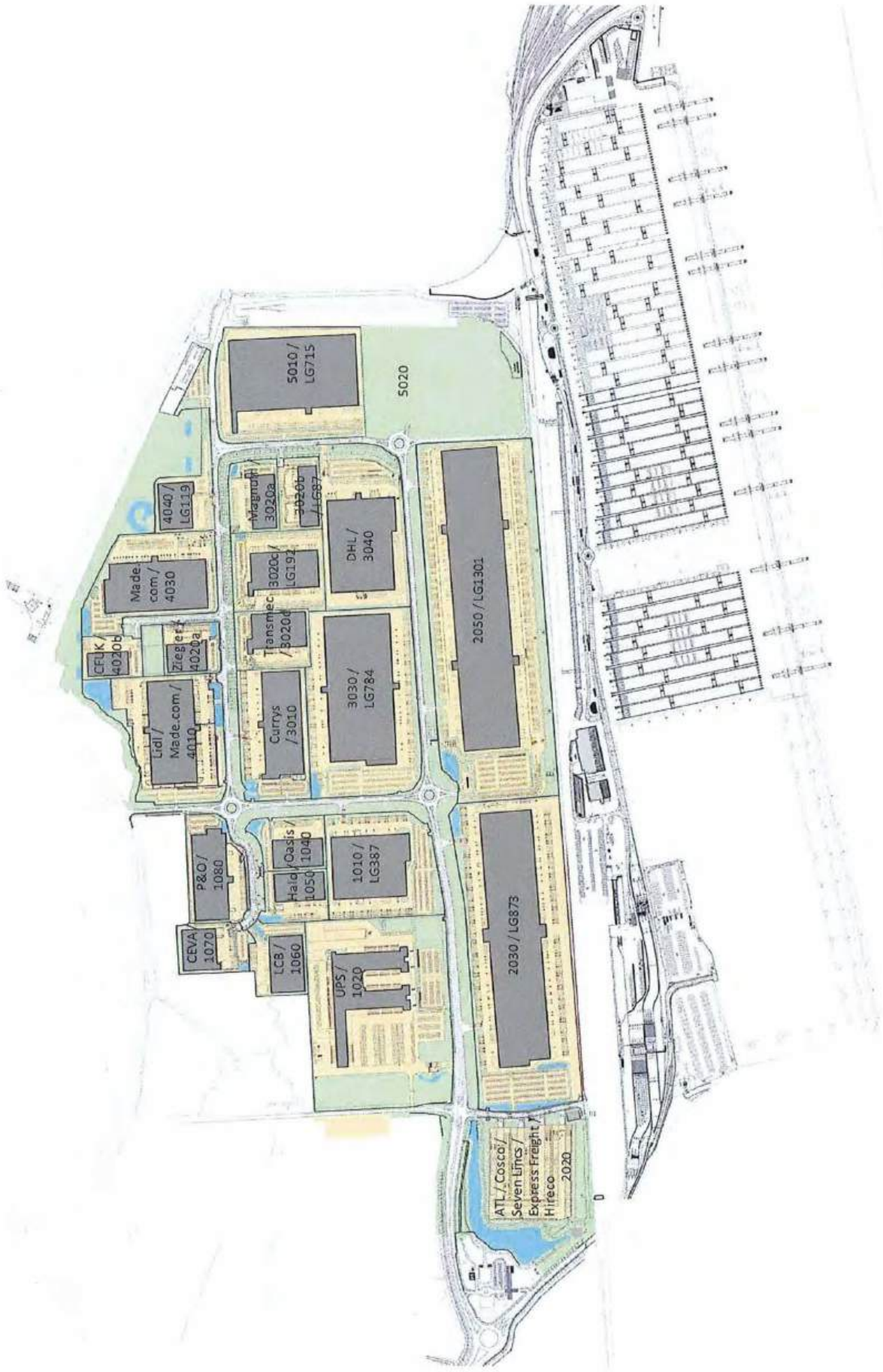
7. Annexures

- A. Plan of London Gateway Logistics Park
- B. Invocation Flow Chart
- C. LGLP IMT Checklist
- D. LGLP Log Sheet
- E. LGLP Emergency Incident Guidance
- F. LGLP Severe Weather Plan
- G. Tenants' Contacts List
- H. Gate Combinations
- I. Instructions for Closing Pump Station
- J. Radio Groups

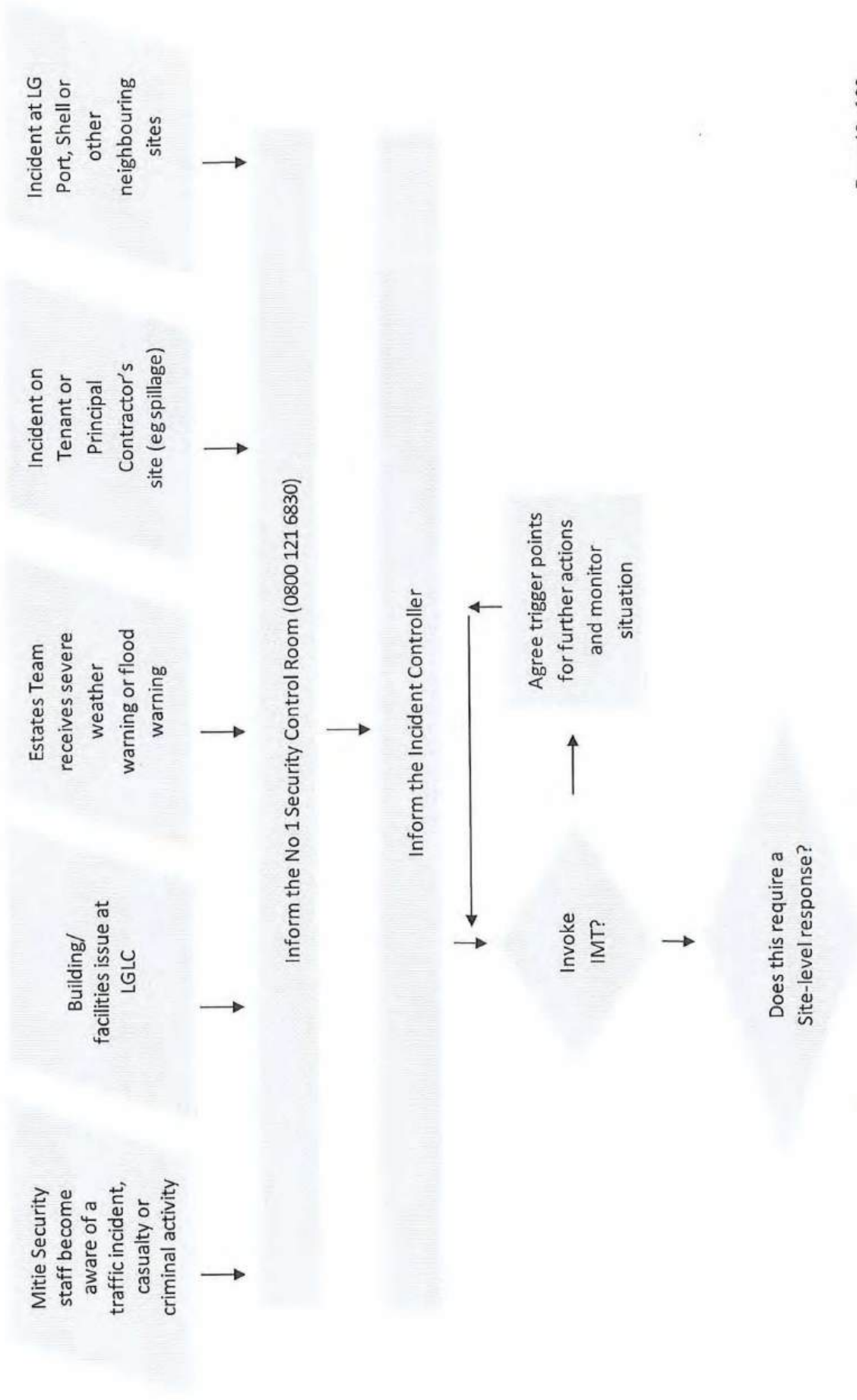
8. References

- A. DP World London Gateway Tier 1 Site Umbrella Emergency Response, Management and Business Recovery Plan (June 2012)
- B. DP World Serious Incident Protocol (April 2018)
- C. DP World London Gateway Flood Action Plan (March 2018)
- D. DP World London Gateway Operation Stack (January 2022)
- E. DP World London Gateway Logistics Centre Incident Management Plan (March 2022)
- F. DP World London Gateway Logistics Park Flood Warning and Emergency Plan (July 2022)

Annex A - Plan of London Gateway Logistics Park



Annex B – LGLP Invocation Flow Chart



Annex C – LGLP IMT Checklist

LGLP IMT Invocation

IMT Locations

- Santos Meeting Room, No1 London Gateway
- RC Desk/Control Room, Third Floor, Terminal Building LG Port
- First Intervention Team
- Orsett Hall
- Bell Inn, Horndon on the Hill
- Premier Inn, Fobbing

All IMT documentation is stored in the Santos Meeting Room

IMT Mobilisation

- Have all LGLP IMT members been notified?
- Do we need anybody else (external or internal)?
- Has the IMT room been established?
- Have conference call lines been opened?
- Has a log been commenced?
- Agree time for handover and inform next IMT shift

Immediate Actions

- Have LGLP staff and visitors been accounted for?
- Are there any casualties?
- Are there any urgent staff welfare issues?
- Has there been an initial communication to staff?
- Have we established communication with all Tenants?
- Do Port/Site or any other stakeholders need to be informed at this stage?
- Is a media statement required?
- Invoke incident message on main phone line

Invocation of Plans

- Procedures for dealing with RTAs
- Procedures for dealing with casualties
- Procedures for dealing with spillages
- Evacuation/loss of utilities to LGLP-managed building
- Severe weather plan
- Flood action plan

IMT Meetings

Assess the Incident

- How bad could this get?
- What do we know?
- What do we need to know?
- Who are our key stakeholders?
- What constraints are we under?

Implement Response

- Share information
- Identify issues
- Generate options
- Agree immediate actions
- Agree trigger points for further actions
- Communicate with stakeholders

LGLP
IMT AIDE-MEMOIRE
V.2 (Draft v.10)

IMT Contact Numbers				
Role	Name	Work Mobile	Pers Mobile	Home
Incident Controller	Sonia Peirson Estates Team			
Security	Clara Hurrell-Smith Wayne Callaghan			
Environment	Tom Coulter Environmental Team			
Facilities	Jordan Shea			
Port Liaison	Port Shift Manager Paul Brooks			
Communications	Dan Bridgett Alexander Walker Tony Lodge			
Health & Safety	Lee Haley Spencer McKenzie			
Insurance	Dawn Clew Jeff Bell			
IT	Nafi Yetkin			
Log-Keepers				

Key Stakeholder Contact Numbers				
Organisation	Name/Role	Office	Mobile	Comments
Shell	Terminal Supervisor Control Room			
PLA	General Duty Officer			
Thurrock Council				
Environment Agency				
Adler & Allen				
First Intervention Team				
Orsett Hall				
Bell Inn				
Premier Inn				

Data Protection

Personal telephone numbers have been supplied in confidence, and are to be used for purposes of Incident Management only

LGLP
IMT AIDE MEMOIRE
V.2 (Draft v.10)

Annex E – LGLP Emergency Incident Guidance

EMERGENCY INCIDENT GUIDANCE

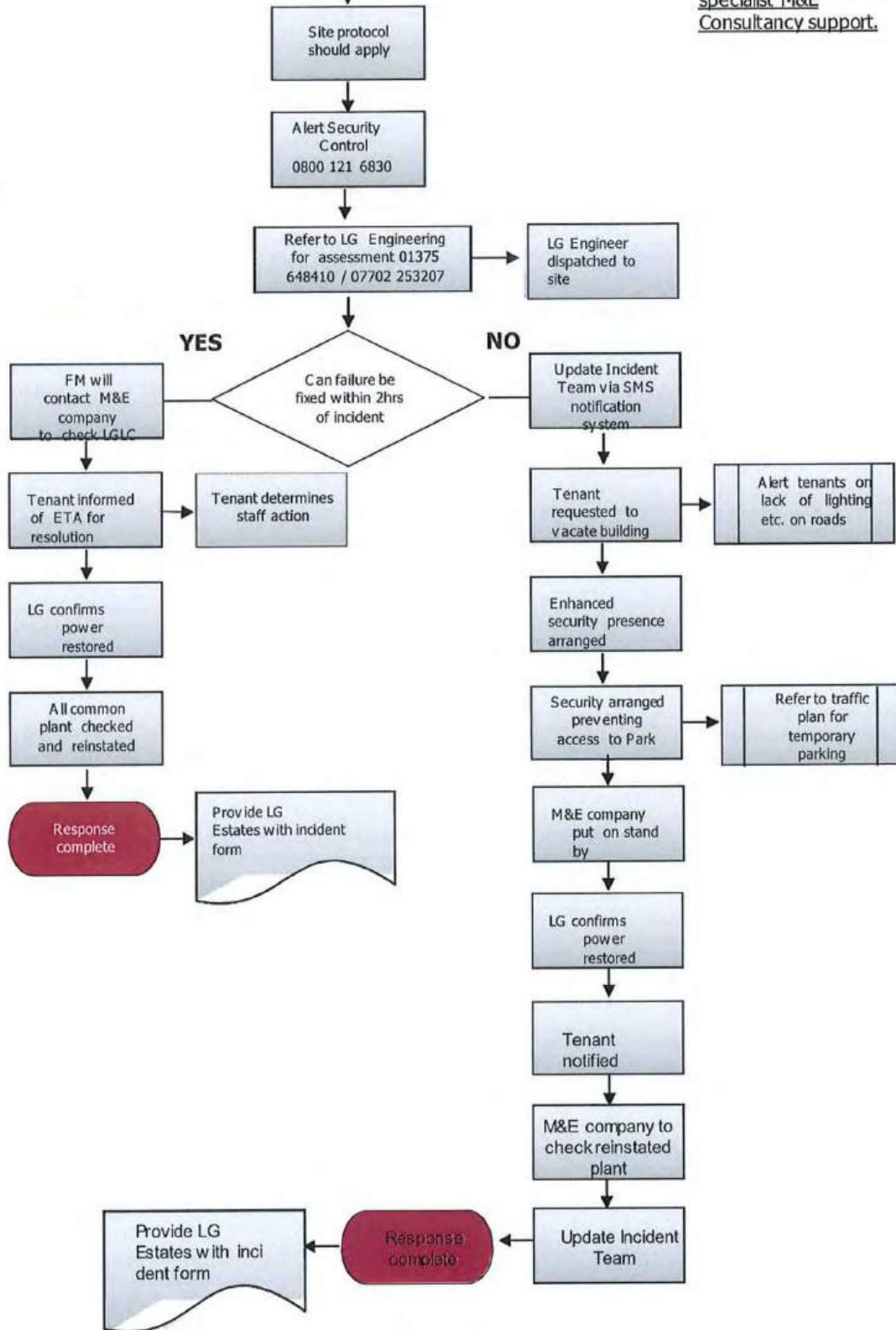
**London Gateway Logistics Park
Stanford-le-Hope
Essex
SS17 9DY**

CONTENTS

Electrical Failure at Logistics Park
Spillage within the Park
Building Damage Assessment
Traffic Accident on Logistics Park
Casualty on Logistics Park
Uncontrolled Social Media
Incident on Neighbouring Site
Criminal Activity and Civil Disturbance

Electrical Failure at Logistics Park

Note : Once park fully handed over all assessments will be made by FM contractors with specialist M&E Consultancy support.



Spillage within the Park

- Actions taken by:
- No1 Control Room
 - LGLP Security staff
 - Incident Controller/IMT
 - Estates/FM team

Alert Security Control Room **0800 121 6830**

Security staff dispatched to site

Confirm nature of spillage and refer to hazchem guidance to establish risk. Do not tackle a spill until the material has been identified and do not expose yourself to danger in the vicinity of the spill.



YES

NO

Contact Emergency Services

Meet Emergency Services at the top of the Access Road

Establish size of exclusion zone and begin evacuation

Implement traffic management plan

Hand control to Emergency Services

Emergency Services clean up spill

Take over control from Emergency Services

Alert member of Estates/FM team to prevent pollution

Contact Alder and Allen on **0800 592827** (response time 4 hours) Put on standby for clean up

Implement procedures to protect swales and drainage system (see Annex I) **if safe to do so**

Alert Incident Controller who decides whether to invoke IMT

Incident Controller/IMT communicates instructions to LGLP occupants

Clean up spill

Alert member of Estates/FM team to manage spill

Implement procedures to protect swales and drainage system (see Annex I)



YES

NO

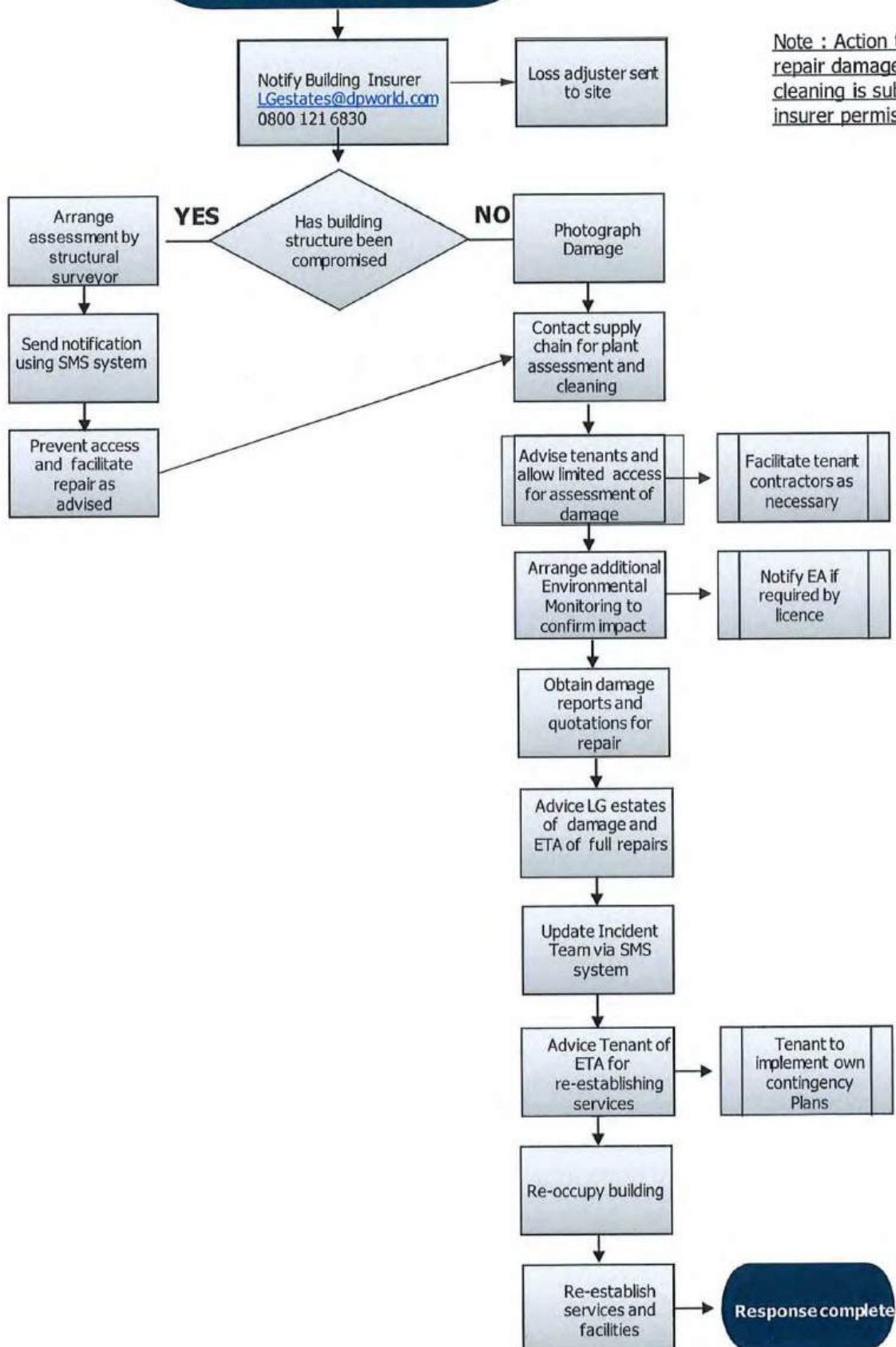
Contain spill as much as possible

Contact Alder and Allen on **0800 592827** (response time 4 hours)

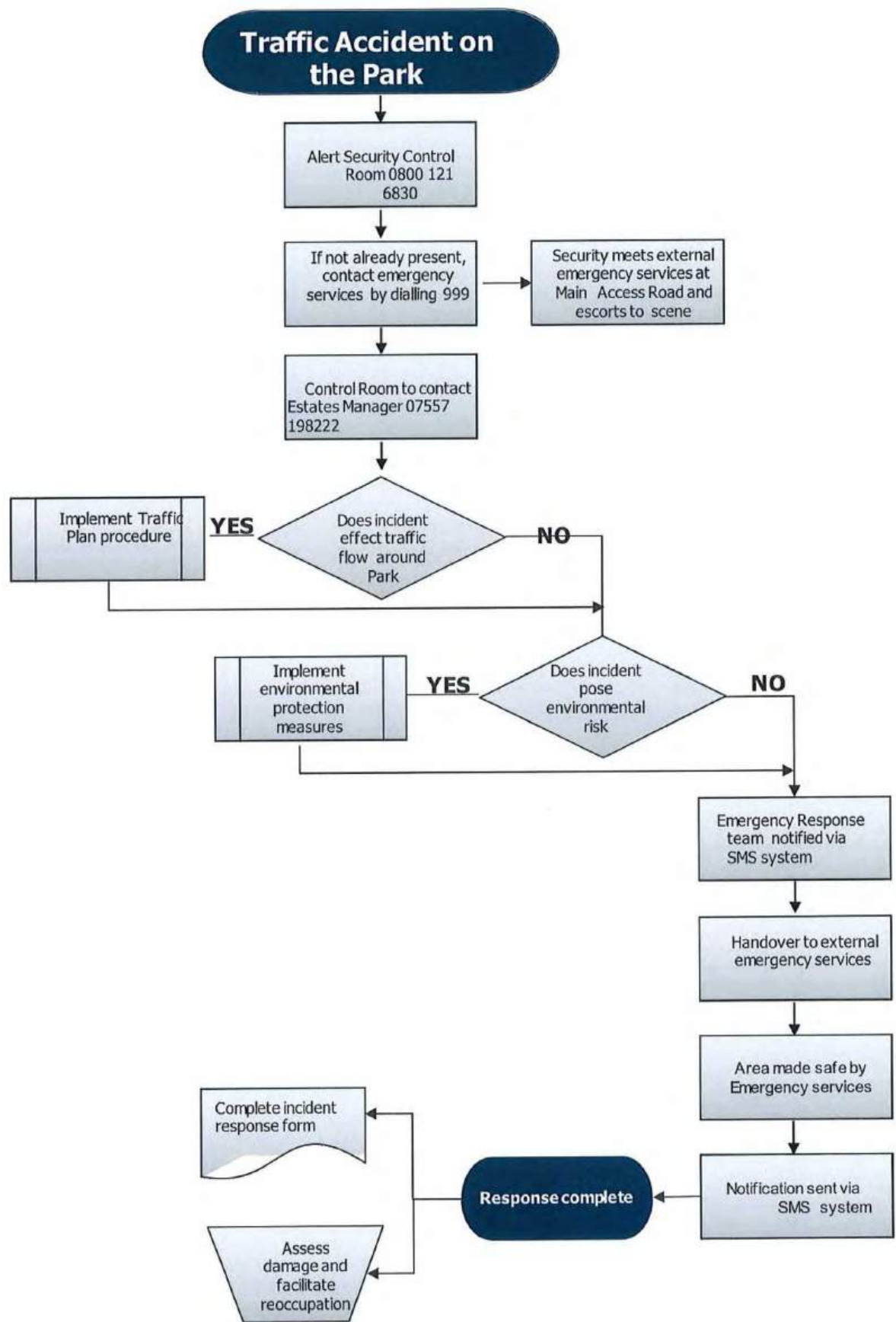
Alder and Allen clean up spill

Write up incident report and circulate to **LGSecurityIncident@londongateway.com**

Building Damage Assessment



Note : Action to repair damage or cleaning is subject to insurer permission.



Casualty on the Park

Alert Emergency Services
999



Alert Security Control Room
0800 121 6830



Dispatch team to
incident and assess and
manage

Dispatch a team to
escort Emergency
service to location

Alert a member of the
Estates Team and
Security Coordinator



Pass over to Emergency
service, write up
incident report and
circulate to
[LGSecurityIncident@lon
dongateway.com](mailto:LGSecurityIncident@londongateway.com)

Uncontrolled Social Media

LGLP staff or third parties become area of social media comment

Refer to LG Communications Manager for monitoring

Escalate in line with DP World corporate policy

LG Communications Manager decides whether to respond directly

No external communications to be issued other than by LG Communications Manager

Incident on Neighbouring Site

Neighbour informs LG Security Control

LG Security assess risk (refer to LG Port Harbourmaster if necessary)

No risk to Park

No Further Action

Notify LG Estates Team

LG Security to monitor and coordinate with Neighbour/Blue Lights

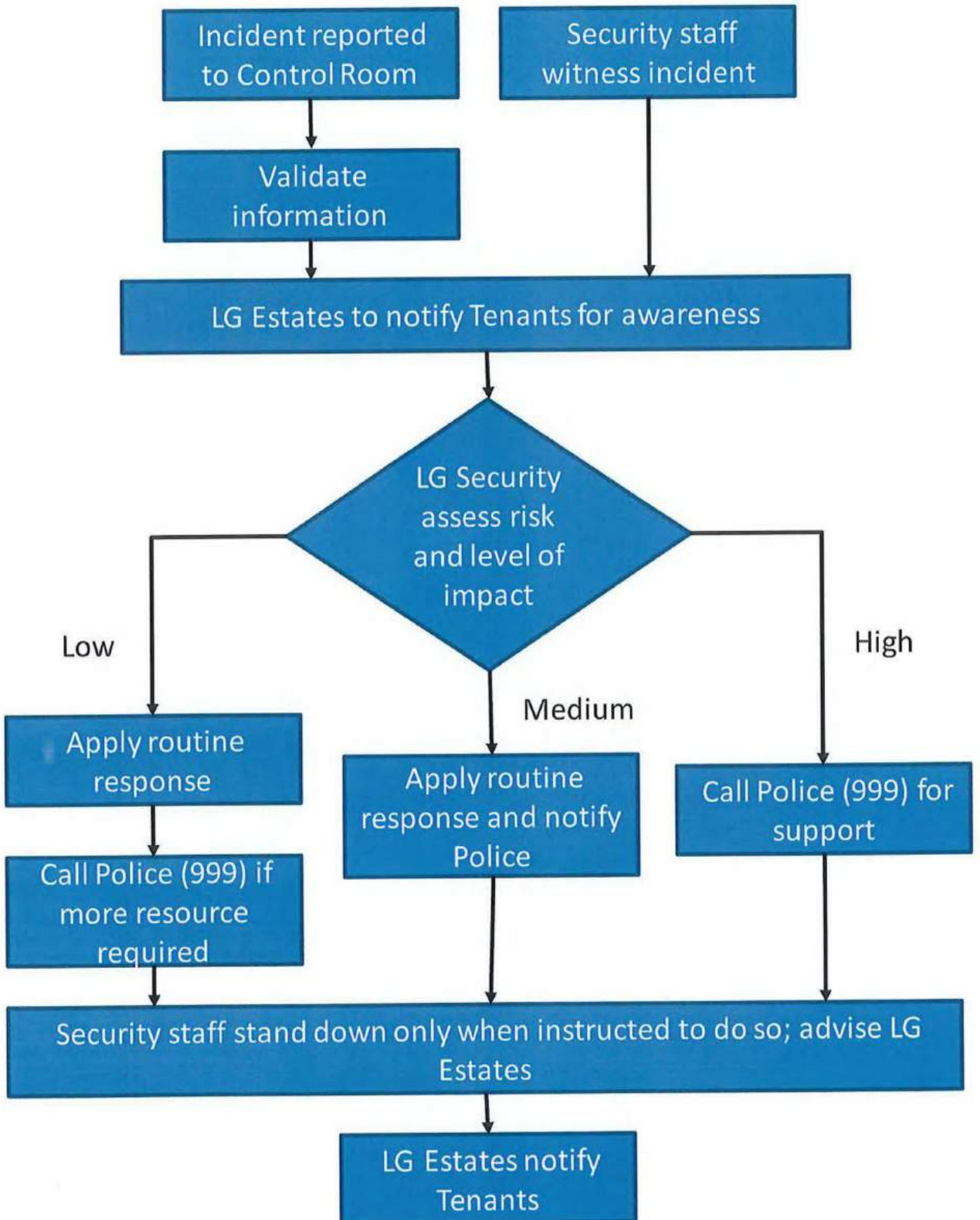
Risk to Park

Estates Team to notify Tenants

Invacuation Plan

Evacuation Plan

Criminal Activity or Civil Disturbance



Annex F – Severe Weather

Warning Trigger	Trigger Stage	Procedures
Environment Agency Flood Alert or Met Office Yellow Warning	Green Alert	Review Flood procedures
Environment Agency Flood Alert or Met Office Yellow Warning	Amber Alert	State of readiness. Move vehicles, important items, hazardous materials to higher ground. Secure large loose items which may float and cause damage.
Environment Agency Flood Alert or Met Office Yellow Warning	Red Alert	Call 999 if in immediate danger and follow emergency services advice, evacuate if told to do so. Avoid driving or walking through flood water. IMT to decide if Park to be closed.

1. Impact of Severe Weather

The potential impacts of severe weather on LGLP include:

- loss of access to (parts of) LGLP;
- physical damage to parts of LGLP (or No 1 London Gateway);
- injury to LGLP staff, tenants or contractors from flying debris;
- Knock-on effects from closure of LG port;
- shortage of LGLP staff (or key contractors, e.g. Mitie);
- loss of utilities to LGLP (or No1 London Gateway); and
- disruption to one or more Tenants.

2. Information

2.1. Weather

LGLP receives weather warnings from the *National Severe Weather Warning Service* via email to the Estates Team. These warnings cover:

- rain;
- thunderstorms;
- wind;
- snow;

- lightning;
- ice; and
- fog.

Weather warnings are issued with an impact grading of "Very Low", "Low", "Medium" or "High"; details of the impact levels can be found at <https://www.metoffice.gov.uk/guide/weather/severe-weather-advice>.

LGLP also receives weather alerts from WeatherQuest via LG Port to the Estates Team.

2.2. Flooding

LGLP receives flood warnings from the Environment Agency via email to the Estates Team. Warnings are issued at three levels as follows:

- Severe Flood Warning: severe flooding - danger to life;
- Flood Warning: flooding is expected - immediate action required; and
- Flood Alert: flooding is possible - be prepared.

Information on current flood warnings is available from <https://flood-warning-information.service.gov.uk/warnings>.

Severe Flood Warning:

- When severe flood warning issued, IMT to ensure Park including construction work, are closed and no access to the Park.
- Operate any emergency electrical shut off switches that terminate electricity supply.
- All non-critical personnel should evacuate the Park or numbers reduced as much as possible.
- IMT will decide if Park to be closed.
- If Park closed, should not reopen until flood warning has been lifted or agreed with the emergency team.
- In no circumstances should a park user enter flood water in a vehicle or on foot.
- Evacuees should not enter floodwater unless Emergency Services are present as part of an assisted/supervised evacuation.
- Ensure all staff have evacuated the site and arrived at a safe place of refuge.

Safe Egress routes have been identified as the Port Access Road or Gate 1 or 2 to the Manorway.

2.3. Transport Disruption

The following websites should be monitored for details of transport disruption:

- The AA - www.theaa.com/traffic-news/;
- Essex County Council - www.essexhighways.org/interactive-maps-and-live-travel-information.aspx; and
- Heart Radio - www.heart.co.uk/essex/news/traffic-travel/.

2.4. School Closures

Information on local school closures is available at the following website: www.essex.gov.uk/Education-Schools/Schools/Dates/Pages/Emergency-School-Closures.aspx.

3. Incident Response

3.1 Pre-Incident

If LGLP receives advance warning of a weather incident (see para 2 above), the Estates Team will inform all tenants and contractors of the expected nature of the disruption. In particular, the Estates team will discuss with contractors if any work should be halted for a period. Tenants and contractors will also be advised to make appropriate preparations such as:

- Implementing local flood defences; and/or
- Securing bins, pallets and other loose items.

The LGLP IMT will make a judgement whether LGLP staff should come on site or work from home.

3.2 During Incident

The LGLP IMT will continue to monitor the situation and will advise tenants/contractors of any deterioration. Actions may include:

- Reducing the number of LGLP staff on site;
- Advising contractors to halt outdoors work;

Ref C details the specific steps to be taken in the event of flooding. Annex E details responses to the following specific issues:

- Electrical failure;
- Building damage;
- Traffic accident; and
- Casualty.

3.3 Post-Incident

Once it is safe to do so, the LGLP Estates Team, assisted by the Security Team, will check for:

- Damage to buildings (including sub-stations and bus shelters);
- Positioning of lifebuoys;
- Contents of spill bins; and
- Litter/debris.

4. Absence Policy

If severe weather conditions make it difficult or dangerous to attend work, staff should phone their line manager by 0730 to make alternative arrangements. In many cases, it may be possible for people to do some work at home but, in some cases, managers may ask staff members to take annual leave or to make the time up when the severe weather has passed.

REPORT

DP World London Gateway Park Estate

Flood Warning and Emergency Plan Park Estate: Non-
Technical Summary

Client: London Gateway Port Ltd.

Reference: AEA667-RHD-ZZ-XX-RP-Z-2021

Status: S1/P03

Date: 21 July 2022

HASKONINGDHV UK LTD.

Telecom House
125-135 Preston Road
Brighton
BN1 6AF
United Kingdom
Water & Maritime
VAT registration number: 792428892

+44 (0)1444 458551 T
info.haywards.heath@uk.rhdhv.com E
royalhaskoningdhv.com W

Document title: DP World London Gateway Park Estate

Reference: AEA667-RHD-ZZ-XX-RP-Z-2021
Status: P03/S1
Date: 21 July 2022
Project name: DP World
Project number: AEA6671
Author(s): Oliver Harvey

Drafted by: Oliver Harvey

Checked by: Debra Griffin

Date: 18/07/2022

Approved by: Steven Brown Christine D'Arcy

Date: 21/07/2022 21/10/2022

Classification

Open

Unless otherwise agreed with the Client, no part of this document may be reproduced or made public or used for any purpose other than that for which the document was produced. HaskoningDHV UK Ltd. accepts no responsibility or liability whatsoever for this document other than towards the Client.

Please note: this document contains personal data of employees of HaskoningDHV UK Ltd.. Before publication or any other way of disclosing, consent needs to be obtained or this document needs to be anonymised, unless anonymisation of this document is prohibited by legislation.

Table of Contents

1	BACKGROUND	1
1.1	Purpose of this report	1
2	SAFE ACCESS / EGRESS ROUTE	2
2.1	Evacuation Route	2
2.2	Evacuation by Vehicle	4
3	FLOOD WARNING AND EMERGENCY PLAN (FWEP)	6
3.1	Ongoing actions	6
3.2	List of roles	6
3.3	Emergency plan	8

1 BACKGROUND

1.1 Purpose of this report

This Flood Warning and Emergency Plan (FWEP) Non-Technical Summary has been prepared on behalf of London Gateway Port Ltd. (herein referred to as the Client) to cover the park area of the DP World London Gateway Park site. The site is located on the north bank of the River Thames, Stanford-le-Hope, Essex, SS17 9DY (herein referred to as the Site; **Figure 1**) to inform potential future development and planning.

Figure 1: Global Mapper Aerial Mapping and Redline Boundary



This document is a more concise non-technical summary (NTS) to provide a summary of the key information to be shared with first time site users to inform their own FWEP and risk assessments for their projects at the Site. If any additional information is required, then it can be found in the FWEP main document (ref:AE6671-RHD-ZZ-XX-RP-Z-2011-FWEP) or in the previous Flood Risk Assessment (FRA) which was produced by Royal HaskoningDHV in 2021 (ref: PC2153-RHD-00-ZZ-RP-0002).

When the FWEP is updated, it should be recorded within a document control table setting out the changes that were made, when, and why these changes were needed, it should also clearly set out who has implemented and who has authorised the changes.



2 SAFE ACCESS / EGRESS ROUTE

2.1 Evacuation Route

This FWEP assess two potential evacuation routes away from the site (**Figure 2 & 3**).

Evacuation route A would be the primary route of evacuation (most direct) by travelling west along Ocean Blvd then northwest along London Gateway Drive towards the existing roundabout to the northwest.

Evacuation Route B could be an alternative route by heading north along Atlantic Avenue or Pacific Avenue then west along The Manorway (A1014).

There are multiple different options to exist the site, for example, the layout of the internal roads means site users could either head north or south and use Evacuation Route A or B with relative ease.

If evacuation is required, then first time site users should be pragmatic about which route is taken depending on if flooding has already occurred.

Figure 2: Potential Evacuation Routes Assessed in this Document. Evacuation Route A is identified in Blue. Evacuation Route B is highlighted in Black.

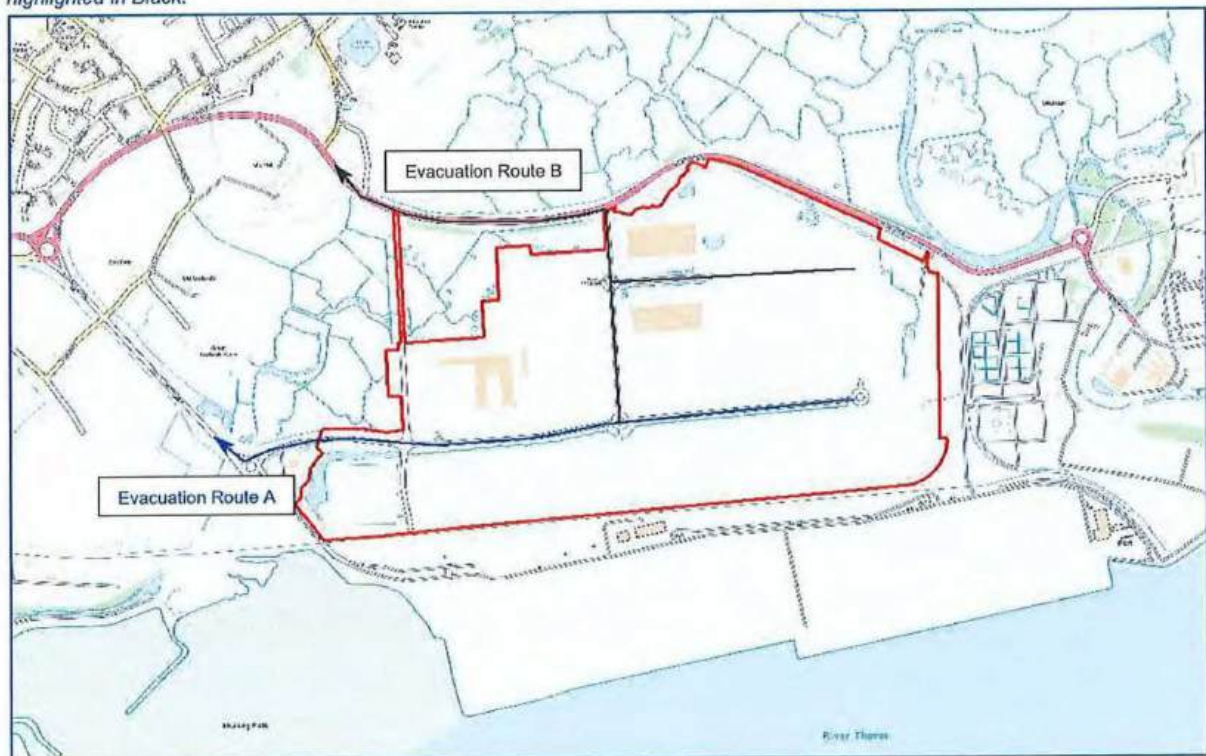


Figure 3: Potential Evacuation Routes Assessed in this Document. Evacuation Route A is identified in Blue. Evacuation Route B is highlighted in Yellow (coloured yellow for visibility on the background image).



Flooding on the Western side of the Site - If a flood defence breach were to occur to the west of the site, it is likely that flooding of the primary access road would happen quickly. There are also some areas on the western side of the site that could flood relatively quickly, the time to inundation could be 1 to 4 hours. This may not give enough time to evacuate any personnel via this route. In this instance, it is highly recommended that the alternative evacuation route is utilised (Evacuation Route B). The time to inundation along Evacuation Route B is between 12-16 hours or 16-20 hours. This should give sufficient time to leave the site prior to flooding occurring.

Flooding on the Eastern side of the Site - If a breach event were to occur to the east of the site (Thames Haven, Coryton or Canvey Island) then flooding of the primary access road would not occur immediately. Analysis indicates that it may be 16-20 hours after the breach occurred that Evacuation Route A experiences flooding. Evacuation Route B on the other hand could experience inundation between 4-8 hours. As such, if a breach event were to occur at FOB002 or anywhere to the east of the site then evacuation from the either access route (Evacuation Route A or B) on the west or north of the site should be utilised.

Similarly, if a breach event were to occur at FOB003 or FOB004 then flooding of the primary access road may not occur until 20+ hours, giving sufficient time to immediately evacuate the site. Evacuation Route B also may not experience flooding for approximately 16-20 hours after a breach occurred. Therefore, if a breach occurred at FOB003/FOB004 or along the oil refinery area/Fobbing tidal reaches then evacuation from the main access road should be utilised.

It is appreciated that the location of a breach cannot be known until after it has occurred. Tidal flooding is a well understood mechanism of flooding where several hours warning would be given. This combined with the fact that a breach event would likely occur during a large storm event means a breach would be unlikely to occur without several hours of prior warning. For tidal floodplains, the EA aim to provide flood warnings at least 6-12 hours in advance.

As flood hazard is a combination of the depth and velocity of floodwater, evacuees should not enter floodwater unless Emergency Services are present as part of an assisted / supervised evacuation. Obstacles below the water can present a significant hazard that may not be immediately obvious – collapsed manhole covers, debris, vegetation etc. can trap a person or cause serious injury when submerged. Additionally, shallow fast moving water can knock a physically fit adult over. Flood water may also be contaminated with sewage and/or hydrocarbons.

Surface Water

Overall, the risk of flooding from pluvial sources to most of the Site could be considered very low, although it is acknowledged that there are areas of high risk near the roundabout on the access road and some areas adjacent to the Stanford Boundary Drain (7C).

In summary, no safe access/egress would be achievable from the Park site if flooding has already occurred. However, depending on the location and severity of the breach it may be possible to utilise either Evacuation Route A or B immediately and exit the area before the access route is inundated.

However, it should be emphasised that prior evacuation upon receipt of EA Flood Warnings should be prioritised. In the event a severe flood warning is in place, all non-critical personnel should evacuate the site or numbers should be reduced as much as possible. It will be the responsibility of the Site emergency team to determine whether the Site should be closed. If the decision to close the site has been taken, the site should not reopen until flood warning has been lifted or agreed with the emergency team.

2.2 Evacuation by Vehicle

DEFRA/EA guidance 'Flood Risk to People' FD2321/TR1 states that there are, essentially, three reasons why vehicles cannot be used in floodwaters:

- The presence of water stops the engine functioning;
- The vehicle floats; and
- The vehicle becomes difficult to control.

Cars will stop and/or float in relatively shallow water (as low as 0.5m in depth) while emergency vehicles may survive in slightly deeper waters (up to 1m in depth). However, with suitable modifications (high level air intakes/exhausts), a fire engine remains controllable in depths of 0.5m at up to 5 m/s water flows.

Given the relatively large flood depths and 'Danger for All' hazard rating, it is unlikely that a 'safe' route could be provided. **It should be noted that under no circumstances should site users enter flood water (in a vehicle or on foot).**

Evacuees should not enter floodwater unless Emergency Services are present as part of an assisted / supervised evacuation. Obstacles below the water can present a significant hazard that may not be immediately obvious – collapsed manhole covers, debris, vegetation etc. can trap a person or cause serious injury when submerged. Additionally, shallow fast moving water can knock a physically fit adult over. Flood water may also be contaminated with sewage and/or hydrocarbons.

The danger of driving through floodwaters is not widely publicised in the UK. The Highway Code does not give advice on driving in flood conditions, and there is no easily accessible information on the Environment Agency website. FD2320 and FD2321 guidance documents do not provide any information relating to hazard ratings for cars/vehicles.

Open



In general, motorists should be aware of the dangers of driving in floodwater and should avoid driving in flooded areas.

3 FLOOD WARNING AND EMERGENCY PLAN (FWEP)

This FWEP NTS has been developed to ensure that safe access / egress from the Site is possible in the event of a flood when evacuation is required, specifically during a tidal/breach flood event.

3.1 Ongoing actions

Prior to the commencement of any construction, it shall be the responsibility of the first time site users to ensure that all actions outlined in the FWEP are implemented. Currently the Site shall be the responsibility of the site owner / manager to ensure that all actions outlined in the FWEP are implemented.

These actions are summarised as follows:

- Undertake a review of the FWEP and make updates to take into account new or additional information.
- Register with the Environment Agency Floodline Warning Direct Scheme. Floodline Warning Direct can be signed up to by calling 0345 988 1188 or visit <https://www.gov.uk/sign-up-for-flood-warnings>.
- Ensure all management personnel are aware of the FWEP and are trained sufficiently to implement the procedures set out in the FWEP.
- Set up a single site wide system for all management staff to gather information regarding flood warnings, site closures etc. so they can disseminate information to their teams.
- Site manager to develop an emergency access and egress plan for the any new works in the floodplain. This plan should also consider how the contractor would recover any stranded plant and equipment, as well as personnel, in the event of flooding.
- During site inductions, all first time site users will need to be made aware of the emergency access and egress arrangements and to determine whether any extra PPE, life jackets and emergency buoyancy aids are needed.
- Site management to identify appropriate designated evacuation points for each phase of the construction works. The designated points should be located within Flood Zone 1. This should be reviewed regularly to ensure there are no changes in floodplain flood extents.

3.2 List of roles

3.2.1 Key personnel

Table 1 summarises the key personnel that have significant roles during a flooding event. It should be reviewed and updated periodically, where necessary, throughout the operational lifetime of the development. Each company/unit in the Park estate should have their own designated risk manager, whose responsibility it will be to monitor and disseminate warnings to members of staff.

Table 1: Key personnel / agencies and their role

Title	Role
Site Manager (during operation) / Site Emergency Team / Risk Manager	Once flood warnings / alerts have been received, it is their responsibility to disseminate flood alerts to all relevant members of staff. When severe flood warnings have been issued, it is their responsibility to ensure that the Site (and any visitors/contractors/construction work) are closed due to potential flooding and plant / materials moved, where appropriate. It is also their responsibility to operate any emergency electrical shut off switches that terminate electricity supply.

	<p>During operation, they should direct the evacuation of the site and help others to move to the designated evacuation points away from the site, located in Flood Zone 1.</p> <p>If staff are unable to leave the Site then they should contact the emergency services for assistance immediately.</p> <p>They should take a register to ensure all staff / resident are accounted for and provide an update to any on-site (or remote) emergency services confirming that the site has either been fully evacuated.</p> <p>It is managements responsibility to ensure all staff have evacuated the site, and have arrived at a safe place of refuge.</p> <p>They are also responsible for all staff are regularly trained in the flood emergency approach for the site.</p>
Site Operatives	All site operatives should be aware of the Flood Emergency Plan, and be familiar with the steps to be taken during the flood warning stage preceding the flood event.
Environment Agency Flood Information Service	<p>The Environment Agency operate a 5 day county-wide forecast in relation to flood risk. It is recommended that this service is regularly checked to ensure staff are aware of any possible risks: https://flood-warning-information.service.gov.uk/5-day-flood-risk</p> <p>The Environment Agency also operate a Flood Information service which identifies whether any flood warnings or alerts have been issued for a specific postcode or place in England or Wales: https://flood-warning-information.service.gov.uk/. These can also be signed up to by contacting 0845 988 1188.</p> <p>The following flood alerts and flood warnings are available from the Environment Agency and are relevant to the Site:</p> <ul style="list-style-type: none"> • The Thames estuary from Shellhaven to and including Tilbury (quick dial code: 313684)
Met Office	<p>The Met Office issues weather warnings up to 5 days in advance, through the National Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both android and apple), social media (twitter, Facebook) or email alerts. More information can be found at https://www.metoffice.gov.uk/weather/guides/warnings.</p> <p>Email notifications can be subscribed to via the following link: https://service.govdelivery.com/accounts/UKMETOFFICE/subscriber/new</p>

3.2.2 Emergency services

It is important to leave the property upon receipt of a severe flood warning. This is to ensure that additional strain is not put on the emergency services. Blue light responders (**i.e. the emergency services**) will automatically become the 'first responder' during a flood event. Any instruction from the emergency services will supersede the information provided in this document. The instructions from the emergency services should be followed.

Table 2 provides contact numbers for relevant Emergency Services. In an emergency where there is a real and immediate threat to life or property always dial 999.

Table 2: Key contact numbers for emergency services

Organisation	Contact Number
Essex County Fire & Rescue Service	HQ: 01376 576000 HQ: 0300 3035555 Emergencies: 999
Essex Police	Non-emergency: 101 Emergencies: 999
Environment Agency	Incident Hotline: 0800 80 70 60 Floodline (24 hour service): 0345 988 1188 (quick dial code: 313684) Main switchboard: 03708 506 506

3.3 Emergency plan

3.3.1 Evacuation triggers

The Environment Agency flood warnings and Met Office weather warnings should be used to set evacuation triggers.

Three trigger stages have been identified, namely, green alert (to implement a review of the FWEP procedures), place first time site users on amber alert (state of readiness) or issue a red alert (site evacuation):

- 1) Flood Alert - to implement a review of the FWEP procedures -
- 2) Flood Warning – first time site users on green alert (state of readiness)
- 3) Severe Flood Warning - issue a red alert (site evacuation).







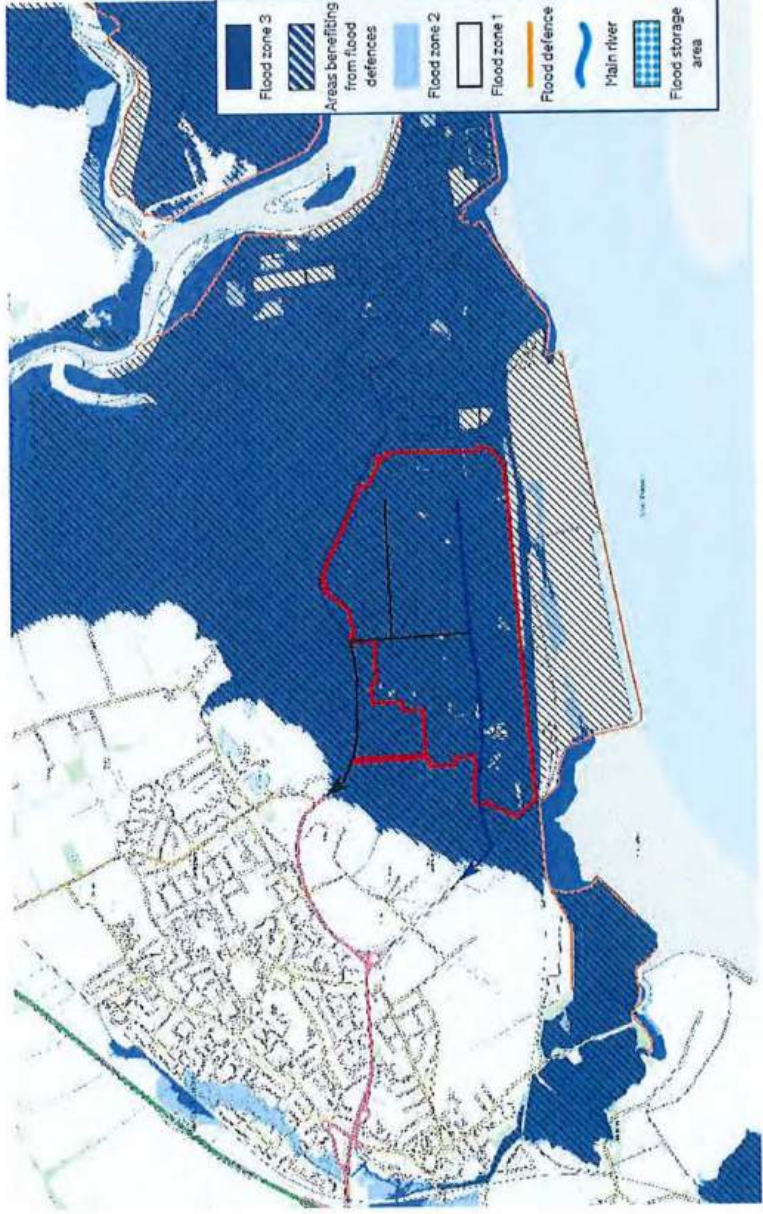
All management staff should sign up to receive flood warnings from the Environment Agency. Management staff are responsible for monitoring the situation and ensuring relevant information is disseminated to all staff members on Site as well as ensuring first time site users follow the procedures if the situation worsens. Management staff are also responsible for ensuring that all first time site users have evacuated from the site.

Table 3: Flood evacuation procedures

Warning trigger	Trigger stage	Procedures
Environment Agency Flood Alert or Met Office Yellow Rain Warning <i>A flood alert means you need to prepare, flooding is possible</i>	Green Alert - Review FWEP	Review FWEP and emergency access and egress plans. <ul style="list-style-type: none"> • Check your flood risk - https://flood-warning-information.service.gov.uk/long-term-flood-risk • Keep up to date with the latest situation - call Floodline on 0345 988 1188 or follow @EnvAgency and #floodaware on Twitter for the latest flood updates • Ensure all management staff are aware of the situation and know their roles/responsibilities should the situation escalate
Environment Agency Flood Warning or Met Office Amber Rain Warning	Amber Alert	Green Alert represents a state of readiness ahead of a potential flood situation. <ul style="list-style-type: none"> • Move vehicles to higher ground if it's safe to do so

Warning trigger	Trigger stage	Procedures
<p><i>A flood warning means you need to act, flooding is expected</i></p>		<ul style="list-style-type: none"> • Move any important items/hazardous materials to a higher level • Secure any materials or large loose items that may float and cause damage during a flood and relocate vulnerable plant/ machinery/ stores • Check staff registers are complete and available to ensure all staff are accounted for post-evacuation. • Site manager to make the final decision to close the site and management staff to disseminate key information to all members of staff
<p>Environment Agency Severe Flood Warning or Met Office Red Weather Warning</p> <p><i>A severe flood warning means there is danger to life, you must act now</i></p>	<p>Red Alert</p>	<p>Red Alert means that you must act.</p> <ul style="list-style-type: none"> • Call 999 if you're in immediate danger • Follow advice from the emergency services and evacuate if you're told to do so • Avoid driving or walking through flood water: just 30cm (1 foot) of fast flowing water could move your car and even shallow moving water can knock you off your feet. It may also contain heavy debris, sharp objects, open manhole covers, sewage and chemicals • Emergency team to determine whether the Site should be closed. If the decision to close the site has been taken, the site should not reopen until flood warning has been lifted or agreed with the park emergency team. • Any non-essential personnel still on site should leave immediately. • Contact the Emergency Services and Environment Agency to confirm that the Construction Compounds are being closed due to possible risk of flooding. • Use allocated evacuation route to facilitate / direct the safe evacuation of all personnel. A register should be taken to ensure all staff are safe. • Site manager should operate the emergency electrical shut off switches terminating the electricity supply and all power supplies.

DP World London Gateway Park site Stanford-le-Hope, Essex, SS17 9DY

	<p>On receipt of a FLOOD ALERT management staff should Update themselves with the Flood Emergency Plan and ensure all procedures are understood</p>
	<p>On receipt of a FLOOD WARNING the staff should be prepared to evacuate by vehicle.</p>
	<p>On receipt of a SEVERE FLOOD WARNING, the staff should evacuate the site unless directly instructed by the Emergency Services. The site should remain closed until the flood warning has been lifted</p>
	<p>Environment Agency Floodline Quick Dial Code: 0345 988 1188 (at prompt select 1) then, 313684. (The Thames estuary from Shellhaven to and including Tilbury)</p>
	<p>Thurrock Council Emergencies: 01375 372 468 (out of hours) Help with evacuation Police 101, or if an emergency 999. Keep calls short!</p>
	<p>Radio Stations with Flood Warnings BBC Radio Essex - FM: 95.3 MHz; FM: 103.5; DAB: 12D</p>
<p>Evacuation Route 1.0 mile, 3 minute drive, 10 minute walk</p> <p>DESTINATION POSTCODE: SS17 7DZ</p>	<p>Leave site via the main access road to the north west of the site (London Gateway Drive). An alternative route (via Arctic Avenue) should only be utilised if flooding has already occurred along the main access route.</p> <p>Under no circumstances should site users enter flood water unless being assisted by emergency services. The Site should not be reoccupied until the flood warnings have been lifted, or it has been deemed safe to do so, by the emergency services.</p>
 <p>THIS ADVICE SHOULD BE FOLLOWED UNLESS DIRECTED TO TAKE DIFFERENT ACTIONS BY EMERGENCY RESPONDERS (BLUE LIGHT RESPONDERS). OBEY ALL DIRECTIONS FROM EMERGENCY (BLUE LIGHT) RESPONDERS.</p>	

Firstly, stay calm. This guidance has been produced to help you make the right choices in the event of the flood. It has been produced using the best available predictions of flooding, with the intention of keeping you and everyone within the development at DP WORLD LONDON GATEWAY safe and away from harm.

If floodwaters are noticed around the site, the safest course of action would be to evacuate everyone on currently on Site.

Unless directed to do so by emergency personnel (blue light responders) no attempt to exit the Site should be made if flooding is evident on any of the access routes. The safest course of action is to remain on site (which is located in Flood Zone 1) and await assistance.

If such a flood occurs management staff will contact the emergency services to alert them to the presence of people requiring evacuation.

If temporary refuge within the building is required, this should be at first floor level and above.

Contact with floodwater should be avoided, as it can contain untreated sewage, or other contaminants. Flood waters can obscure hazards below the surface, sharp objects, open manholes, and therefore should be treated as a hazard.

Once temporary refuge has been achieved, a register of people present should be taken, and someone should be appointed as the Primary Flood Co-ordinator. This person should co-ordinate with

the local emergency services, as appropriate. All mobile phone calls should be kept short in order to enable capacity on the network.

Local news outlets and radio stations should be monitored to receive up-to-date information of the flooding.

Use of individual mobile phones should be discouraged, this is to free-up service on the network for emergency calls and use by emergency service personnel. This can also preserve battery life, to provide additional back-ups should the need arise.



On receipt of a **FLOOD ALERT** all management staff should familiarise themselves with the flood evacuation plan, and make sure that process are in place to alert all staff to the situation.

Monitor the situation via local media. Make themselves aware of forecast local weather conditions. Alert both current visitors, and those scheduled to arrive, of the situation. Prepare to evacuate if necessary.

Check your flood risk - <https://flood-warning-information.service.gov.uk/long-term-flood-risk>



On receipt of a **FLOOD WARNING** management staff should alert all staff of the current situation. Measures should be taken to ensure that any important/hazardous materials are moved to a higher level and large loose items (that could float in a flood) are secured. The site manager should prepare to close the site if necessary. Alert scheduled visitors/contractors etc. that they should not enter the site. Be Prepared to follow instruction from the Emergency Services.



On receipt of a **SEVERE FLOOD WARNING** all non-critical personnel should evacuate the site or numbers should be reduced as much as possible. It will be the responsibility of the Site emergency team to determine whether the Site should be closed. If the decision to close the site has been taken, the site should not reopen until flood warning has been lifted or otherwise agreed with the emergency team.

The emergency services become the first responders during a flood event. The instructions they give should be followed at all times, even if it contradicts the details of this FSWEP report.

*The management staff should be signed up to the Environment Agency's flood warning service:
<https://www.gov.uk/sign-up-for-flood-warnings>*

Annex G – Tenants' Contact List

Plot	Tenant	Point of Contact	Job Title
Plot 1020	UPS	Dominik Martyniak Jon Parson	Accounts Email BaSE Automation Manager Facilities Manager
Plot 3010	Dixons Carphone	Matthew Ritchie	Commercial Director
Plot 1050	S H Pratts	Wayne Milne David Bateman	Managing Director
Plot 1060	London City Bond	Vaughan Bendall Alf Allington	
Plot 1070	Ceva Logistics	Rob Waterman Mick Blow Steve Bugg	MD- CMA CGM UK Managing Director Site Depot Manager
Plot 1080	P&O FM	Graham Brooks	Site Manager
Plot 4020a	Ziegler	Tracy Hampton Lee Marshall Darrell Noble Eddie Carey Yanko Popov	PA to Directors/Facilities Management Managing Director General Manager Logistics Operations Director Head of Depot Operations
Plot 4020b	CF		
Plot 4030	Cosco Shipping	Martin Beadle	Operations Manager
Plot 3040	DHL Supply Chain	Dean Woodroof Darlene Wootton	General Manager Facilities Manager

LONDON GATEWAY LOGISTICS CENTRE

Tenant	Tenant	Point of Contact	Job Title	Email	Contact Numbers
Ground floor right	London Port Health Authority	Tara Czogalik	Port Health Business Manager		
		Peter Markwell	Port Health Manager		
		Matthew Purkiss	Port Health Manager		
1st floor left	Warwick Estates	Beverley Squire	Regional Manager		
1st Floor	Boluda	Phil Dulson	Manager		
		David Slater	Commercial Manager		
1st Floor left	Thermotraffic	Neil Stokes	Head of Operations		
2nd floor left	Britannia Bureau Limited	Jamie Stuart			
		Mark Taylor			
2nd floor right	Good Shipping Ltd	Darren Spence	Director		
		Dave Churchyard	Key Account Manager		

Truck Park

Area	Tenant	Name	Job Title	Email	Contact Numbers	Mobile
Park 1	ATL Haulage Limited	Jamie Woodward Amit Karia	Director Managing Director			
Park 2a	Seven Lincs Limited	Tom Dunnett Chris Woods Angela Price	Fleet & Compliance Manager Insurance Advisor			
Park 2 b	Cosco Shipping Logistics UK	Martin Beadle Roman Plewa	Operations Manager General Manager/Director			
Park 4	Hireco (TL) Limited	Paul jeffery Gary White	Truck Park Manager Operations director			

Annex H – Gate Combinations

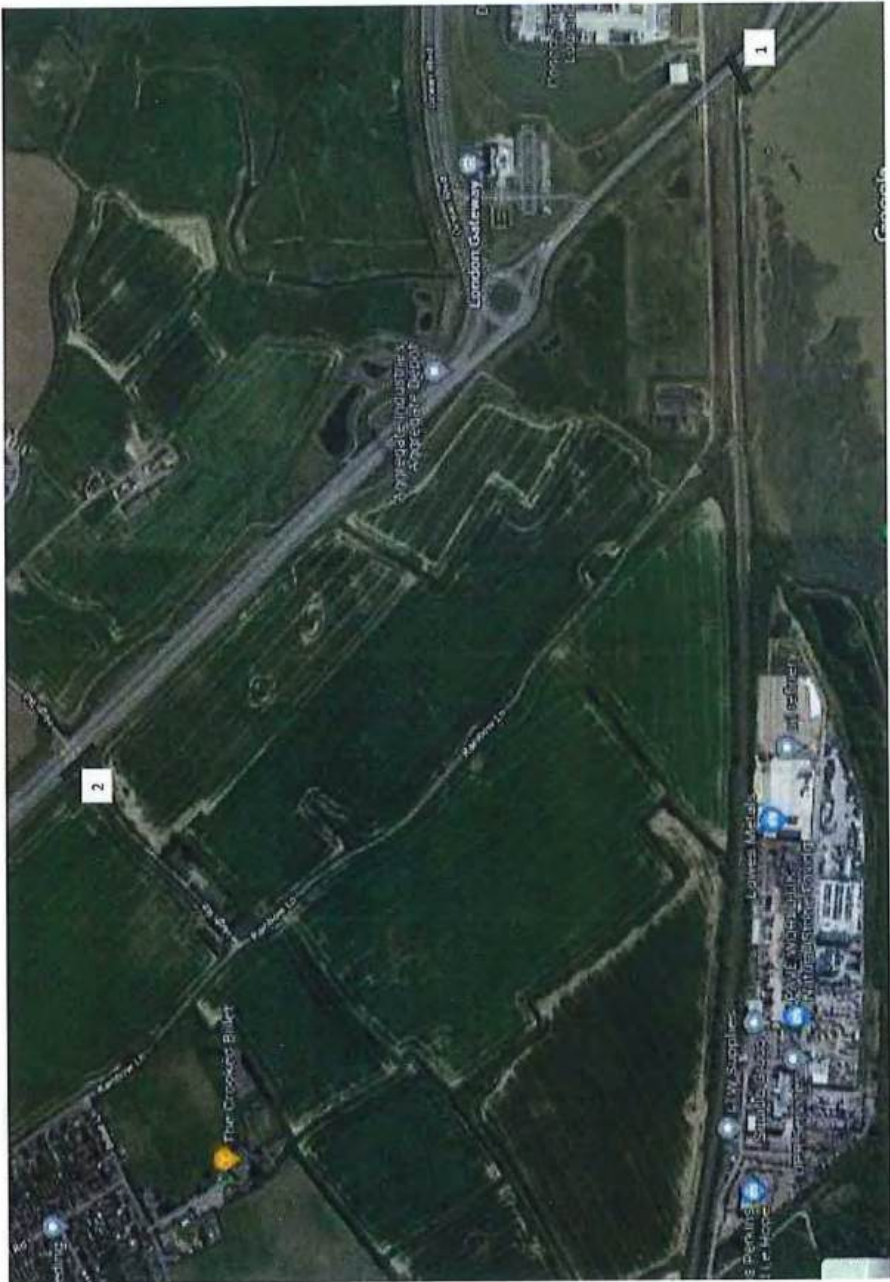
No	Zone	Gate Description
1		Gate 1
2		Gate 2
3		Gate 3
4		Manorway House
5		Cosco (Kit Kat)
6		DPW Training Area
1		Gate 45
2		Berth 6
3		Berth 6 Middle
4		Berth 3
5		DPW Staff Car Park
6		S Jetty
7		Berth 6 Top
8		Pedestrian Gate MG
1		Graffiti Gate
2		Rainbow Lane











Annex I – Instructions for Closing Pump Station

Logistics Park - Closing Pumping Station Penstocks – Spillage Procedure

DP World London Gateway Logistics Park does not benefit from being near a suitable connection point to the public sewerage system. Surface water from the Park Roads and most the Plots drains into the drainage corridors and is then ultimately discharged via the Pumping station into the River Thames. If there is a spillage on the Park that is at risk of entering the drainage corridors, it is very important that the pumping station is closed off so that polluted water doesn't get pumped into the River Thames. The Environment Agency can impose large fines or penalties on companies or individuals for spills entering the River Thames.

This procedure is produced to assist in the closing of the Penstock Gates to stop any such spills from entering the Pumping Station.

The diagram below shows where the Pumping Station in question is located and how to access.



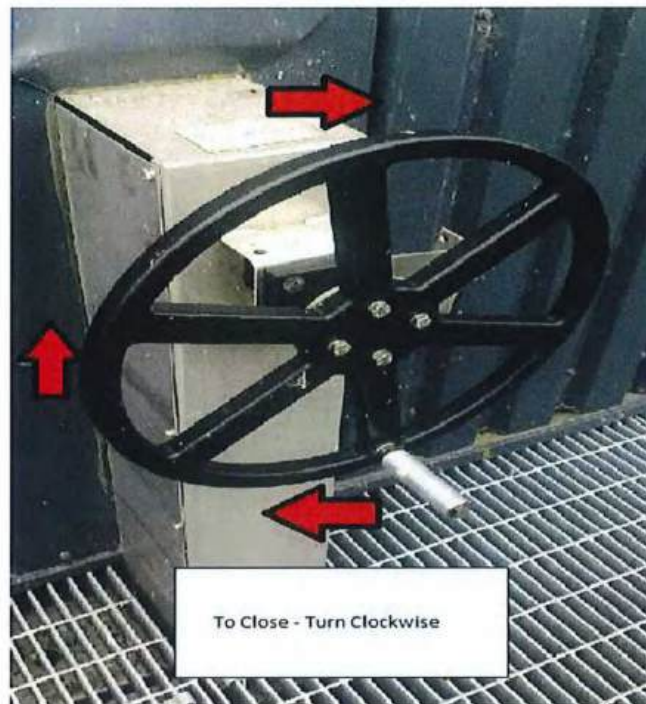
There are 3 Penstock Wheels located at the back of the Pumping Station. The back of the Pumping Station is facing NO.1 LGW.

Each wheel opens/closes each section of the Penstock Gate and all 3 sections need to be closed if a spillage enters the lagoon.



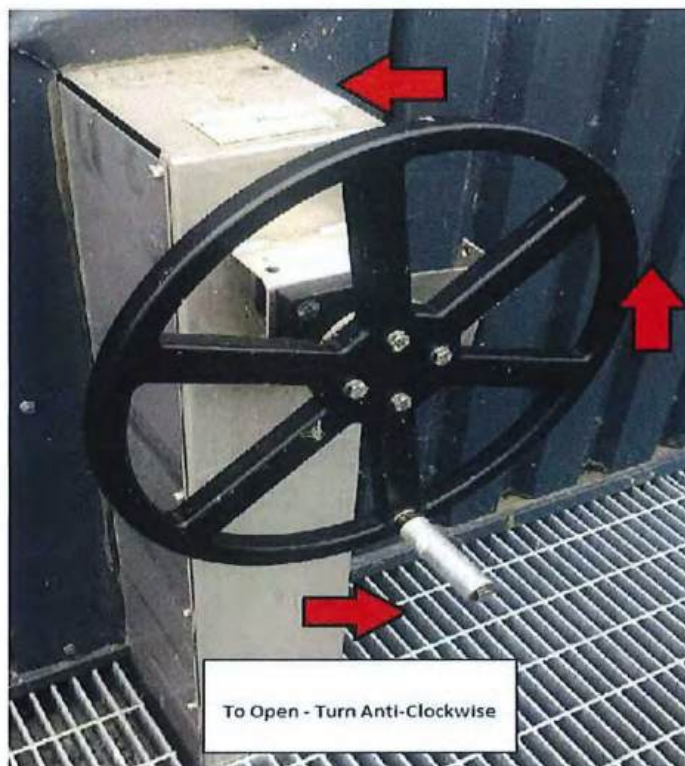
Closing the Penstock Gate

To close each section, each wheel must be turned fully **CLOCKWISE** by hand. All 3 sections must be closed.



Opening the Penstock Gate

When Instructed to each section can be opened, each wheel must be turned fully **ANTI-CLOCKWISE**. All 3 sections must be re-opened.

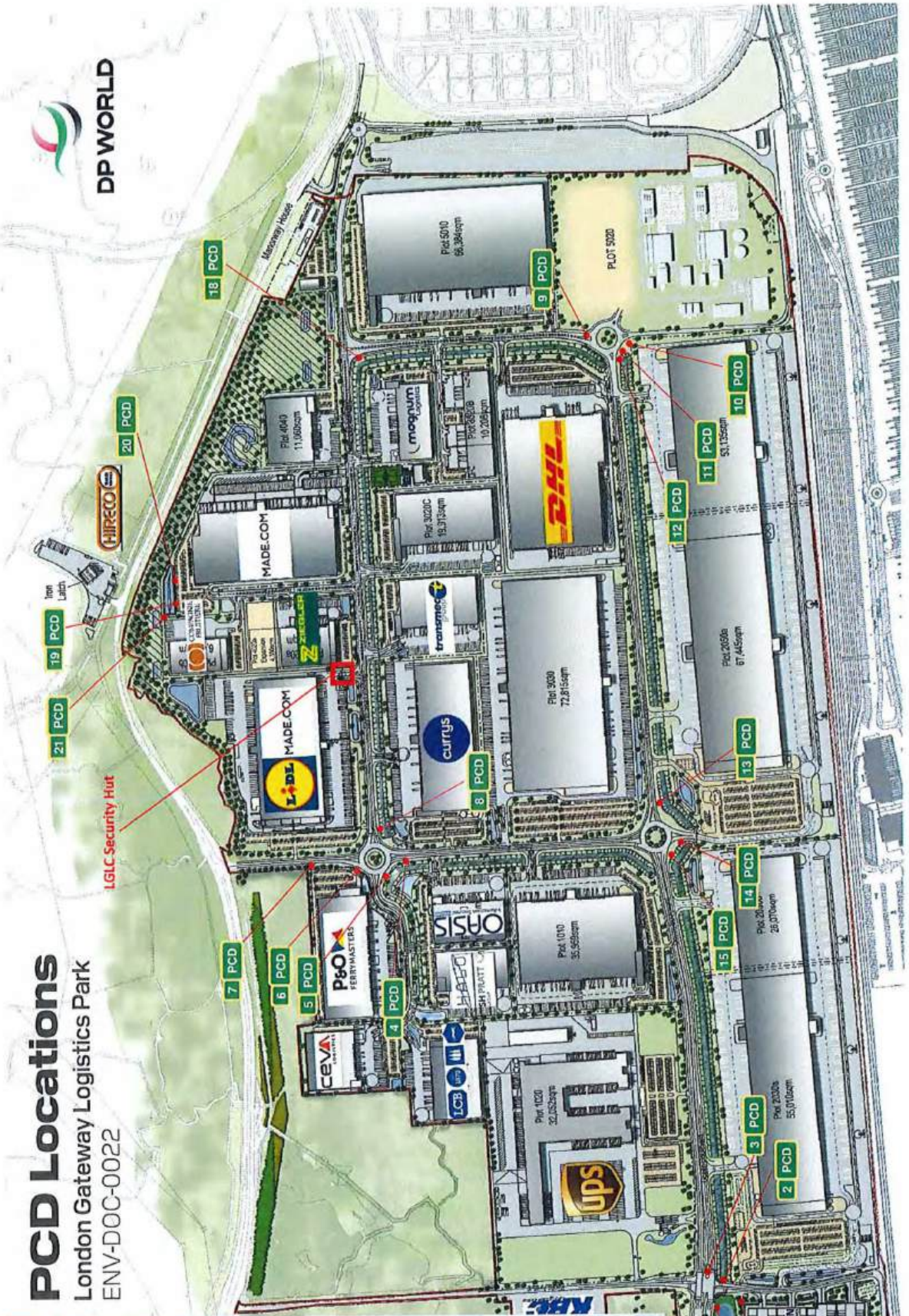


PCD Locations

London Gateway Logistics Park ENV-DOC-002



PCD	what3words location	Location of Spindle Key
1	lend.tunny.taking	PCD 2 manhole
2	soil.shaky.seeds	Manhole
3	priced.pulse.input	Manhole
4	trader.rail.rush	Manhole
5	racers.dirt.zest	Manhole
6	teeth.about.phones	Manhole
7	demand.fills.mouse	Manhole
8	skirt.crunche.scar	Manhole
9	elder.doors.taking	Manhole
10	organ.stone.loud	Manhole
11	meal.trial.scared	Manhole
12	indoor.statue.crop	Manhole
13	scuba.truly.simple	Manhole
14	land.keep.acks	Manhole
15	tanks.charm.acute	Manhole
16	played.fair.raced	No key, Motorised.
17	rope.lawn.record	No key, Motorised.
18	fresh.bend.heads	LGLC Security Hut
19	cages.glad.ocean	No key, Motorised.
20	avoid.gangs.worth	No key, Motorised.
21	no.ice.punchy.myself	LGLC Security Hut



Title:	London Gateway Logistic Park - PCD Spillage Procedure		
Site:	London Gateway Logistic Park		
Doc Reference:	ENV-DOC-0023	Date:	16.02.23
Version:	4		

Please note: This procedure must be read with ENV-DOC-0022 PCD Locations

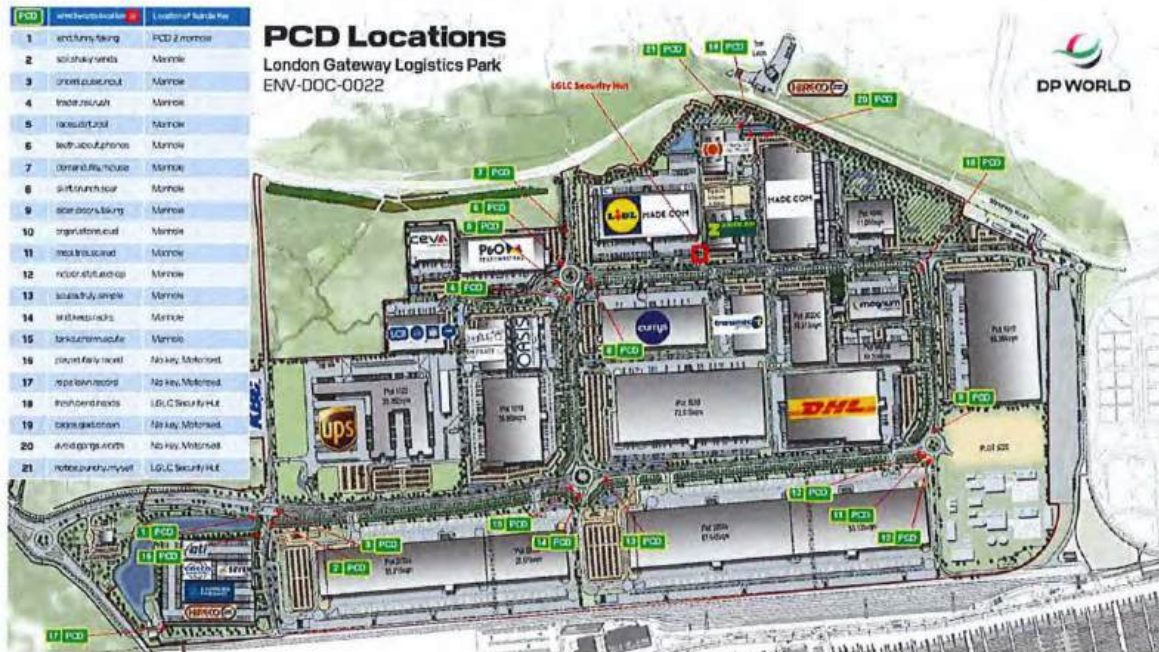


Figure 1 – Location of PCDs on the Logistics Park

Contents

1. Background	1
2. PCD Locations.....	2
3. Using PCDs	2
4. Additional information PCD #1 & #2:.....	3
5. Additional Information PCD #16 & #17.....	4
6. Additional information PCD #18 & #21.....	4
7. Additional information PCD #19 & #20.....	6


1. Background

1.1. Surface water from the London Gateway Logistic Park road network drains into the drainage corridors and is then discharged into the River Thames. If there is a spillage on the Logistic Park, it is important that the drainage from the roads is closed off so that pollution does not enter the

drainage corridors. The Environment Agency can impose large fines or penalties on companies or individuals for spills which enter the natural environment.

- 1.2. The Pollution Control Devices (PCD's) are located at key risk areas along the Park internal road network. If there is a spillage on any of the roads, then adjacent PCD's should be closed to stop the spill entering the drainage corridor.

2. PCD Locations

- 2.1. The locations of all PCDs on the Logistic Park are shown in Document ENV-DOC-0022, which has been pasted into this document as Figure 1. There are 21 PCDs in total. 
- 2.2. At certain locations, you will find a PCD sign indicating the general area where the device is located. Not all locations have this PCD sign.
- 2.3. Most PCDs sit beneath a manhole cover with a corresponding yellow number painted on it. Certain PCDs, however, are open access and not located beneath a manhole cover.
- 2.4. Each PCD can be located by navigating to the corresponding what3words address as specified in Document ENV-DOC-0022 (Figure 1).

3. Using PCDs

- 3.1. To gain access to the device, lift off the manhole cover using a set of manhole keys and place to one side. Mounted on the inside of each manhole (with the exception of PCD 1, 16, 17, 18, 19, 20 & 21) is a key that is used to operate the device. The location of the key for each PCD is specified in Document ENV-DOC-0022 (Figure 1).



- 3.2. Remove the key from the bracket and connect it to the top of the PCD spindle. Turn the spindle counter-clockwise to close the device, and clockwise to open again. All PCDs are left open, only to be isolated and closed in the event of a spill.



4. Additional information PCD #1 & #2:

- 4.1. PCD #1 & #2 have a slightly different design than the others.
- 4.2. The devices still operate the same way except there is 1 key between them both. Due to #1 being open access (i.e. is not located in a manhole) the key for this has been installed inside the PCD #2 manhole for safe keeping. If PCD #1 needs to be closed, the key will need to be retrieved from #2 first.

PCD #1



PCD #2



5. Additional Information PCD #16 & #17

- 5.1. Please see separate procedure: *Security Spillage Procedure London Gateway HGV Lorry Park*.
- 5.2. Please also note that there is no key to operate these PCDs, rather the spindle is motorised. If the motor is not working, the spindle can be turned using the manual override. These PCDs are not located beneath manhole covers.

6. Additional information PCD #18 & #21

- 6.1. PCD #18 & #21 have a slightly different design than the others.
- 6.2. The devices still operate the same way except there is 1 key between them both. This key is kept at the LGLC Security Hut the location of which is shown in Document ENV-DOC-0022 (Figure 1).
- 6.3. Please also note that PCD #21 is located within the premises of Plot 4020B (Compagnie Fruitiere) and permission would need to be sought from this tenant to gain access to this PCD.
- 6.4. Please also note that, unlike other drainage PCD's which are all in drainage connected to the park internal drainage corridors, the drainage from PCD #21 connects to the farmers' fields to the north of Plot 4020B.
- 6.5. The manhole cover for PCD #21 does not have a corresponding yellow number painted on it and please also note that the spindle is located below a smaller manhole cover adjacent to the main manhole cover.

PCD #18



PCD #21



7. Additional information PCD #19 & #20

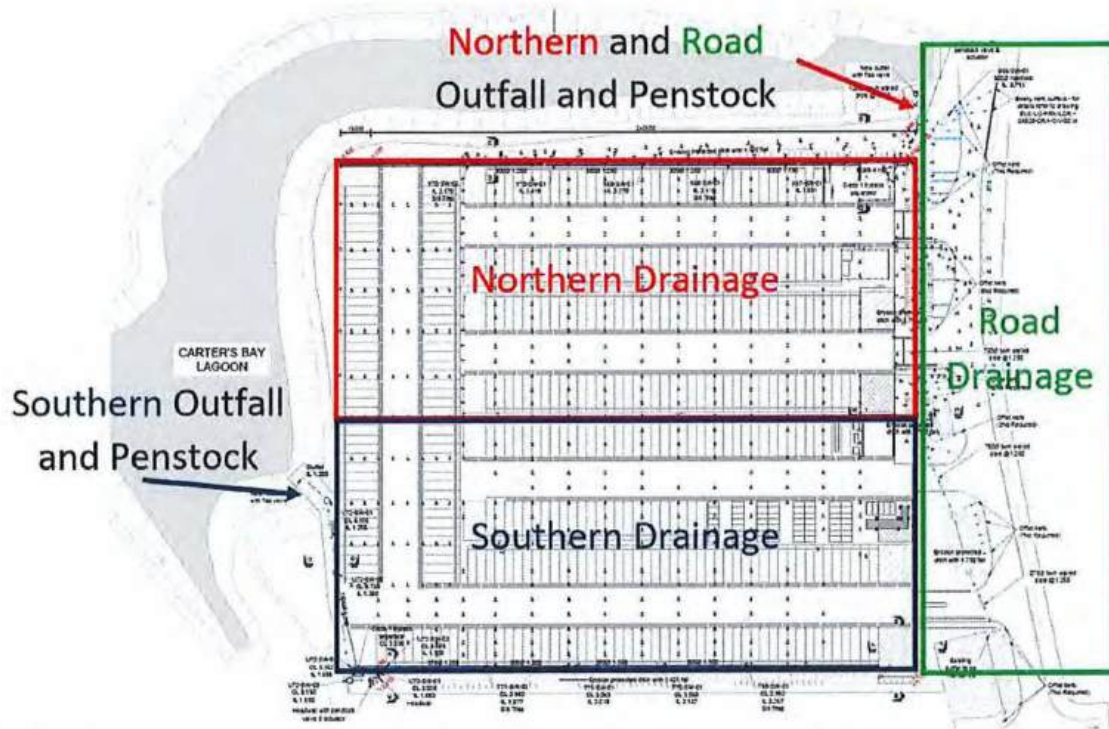
- 7.1. PCD #19 & #20 are located on the banks of a small dam in the premises of Plot 4030. Access can be gained by walking through the car park.
- 7.2. Please note that there is no key to operate these PCDs, rather the spindle is motorised. If the motor is not working, the spindle can be turned using the manual override. These PCDs are not located beneath manhole covers.

PCD #19 & #20



END

Security Spillage Procedure London Gateway HGV Lorry Park



The London Gateway HGV Lorry Park and Access Road surface water drains into the Carters Bay Lagoon and is then discharged into the River Thames. If there is a spillage on the Lorry Park that gets into the drainage, then it is important the drainage is closed off so that pollution doesn't get into the Lagoon or the River. The Environment Agency can impose large fines or penalties on companies or individuals for spills which enter the natural environment. Penstocks should also be closed if the adjacent interceptors are in alarm.

If a spillage occurs on the Lorry Park, then the tenant should inform you of the following details:

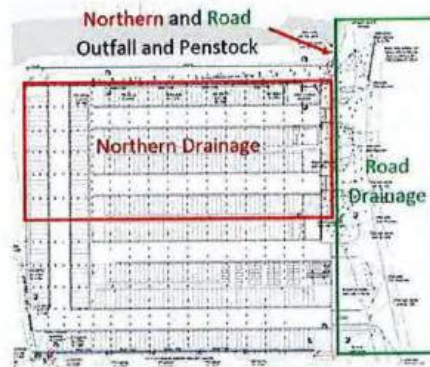
- 1) Location of spill (Access Road, Northern or Southern Drainage Area)
- 2) The nature of the spillage e.g. fuel, hydraulic oil, hazardous substance.
- 3) Amount spilt if known.
- 4) If spillage has entered the drainage or affected other tenanted areas on the Park.

The surface drainage on the Lorry Park is split between the Northern and the Southern Drainage. The Access Road drainage also feeds into the same penstock and outfall as the Northern Drainage.

Spillage Procedure

- 1) Isolate the area.
- 2) Close appropriate Penstocks (see Page 2-4)
- 3) If spillage has already been discharged into Carters Bay Lagoon or this is at risk then follow the Carters Bay Pumping Station emergency shut down.
- 4) Phone Reception on **01375 683300** during work hours and FM Helpdesk outside of work hours on **07860 704024** to inform them of the spillage and the details.
- 5) If spillage is on the Access Road clean up spillage if fuel or hydraulic oil. If a hazardous chemical or the fuel/oil spillage is too large to deal with onsite team, then phone Adler and Allen on **0800 592827** and request assistance for the clean-up.

Closing Northern Drainage and Access Road Penstock



Area is accessed from the North via Ocean Boulevard



Closing Southern Drainage Penstock



1) Area is accessed from the South via the side of the Carters Bay Pumping station.



Using Penstocks



- 1) Ensure Penstock is set to 'Local control' as per below (note normally left locked in this position)



- 2) Close Penstock by pushing in the button on the bottom left.



- 3) If the electronic closure is not working, then the penstock should be closed manually by pushing in the blue button and turning the handle.



- 4) The Gate will be fully down when penstock is closed.

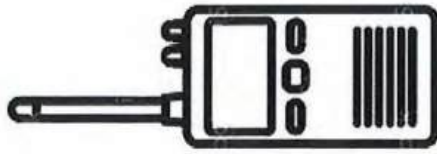


- 5) Don't open the penstock unless instructed to by LG Estates or Environment.

Annex J – Radio Groups

RADIO UPDATE'S

GO LIVE 22nd JUNE 2022 (06:00)



New Zones & Groups

General	Quayside	Landside	Engineering All	Inspections
SS	QC 01	IMV ALL	Engineering All	Insp Supv
SM	QC 02	IMV 1	Stores	Insp Team
Security	QC 03	OOG (Old LS)	ASC Team	IMV ALL
Training	QC 04	LS Marshals (Training 1)	QC Team	SS
Health and Safety	QC 05	Marshals 45 (Training 2)	ME Team	General
Facilities	QC 06	MTY Stacker	Fabrication Team	Engineering All
First Aid	QC 07	Rail Checkers	PM 1	Freeze Requests
Mooring (LM)	QC 08	Rail Contractor	PM 2	
Freeze Requests	QC 09	Reach Stacker	Freeze Requests	
Incident	QC 10	RMG 1	Facilities	
General	QC 11	RMG 2	SS	
	QC 12	RMG 3		
	QC ALL	Yard Shunting (IMV 5)		
	SC ALL (For Freeze Only)	Gate		
	SC General (old SC01)	Reefer		
	Yard Shuttles (old SC02)			
	Lashing Pool (Old Berth 1)			
	Lashing Pool 2 (Berth 2)			
	Lashing Training (Berth 3)			
	Mooring (LM)			

Those in brackets are for the old channel set up

Emergency Button Standard

- Activate Emergency (2 Second Press On Orange Button)
- Short Press Orange Button To Cancel
- Press The Ok Button Twice To Clear Emergency After Receiving



All Radios should be on version **R02.10.10.0001**

How to check

Press Ok

Scroll to Utilities (press ok)

Radio Info (press ok)

Version (press ok)



If you are unsure of anything, please contact Mark Tanner or visit him on the 2nd floor of the terminal building

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 3: Design Code



January 2025

London Gateway Park Local Development Order 2

Design Code

Contents	Page
Introduction	4
Part 1: Plot Design Standards for General Industry, Storage and Distribution, Research and Development and Light Industrial	8
A Plots and Building Design Standards	8
A1 Plots	8
A2 Building Size	8
A3 Height	10
A4 General Cladding and Roofing Principles	12
A5 Dock Levellers and Level Access Doors	14
A6 Ancillary Office Accommodation	14
A7 Roofscape and Plant	14
A8 Gatehouses	15
A9 External Building and Site Signage	15
A10 Sustainable Design Standards	15
B Roads, Parking and Access	16
B1 Plot Access	16
B2 Plot Based Vehicle Servicing	16
B3 Parking Standards	17
B4 Lorry Parking	20
B5 Cycle Parking	20
B6 Materials	21
B7 Standards for Footpaths and Cycleways	21
B8 Lighting	22
B9 Plot-by-Plot Rail Connection	28
C Landscaping	30
C1 Street Furniture	30
C2 Boundary Treatments	30
C3 Feature Elements	31
C4 Soft Landscaping	32
C5 Landscape Management Plan	38
C6 External Finishes	38
C7 Earth Shaping and Planting Regime	38
D External Areas	39
D1 External Storage	39
D2 Ancillary Infrastructure	39
E On Plot Drainage Standards	41
E0 Overview	41
E1 Foul Water Drainage and Treatment	41
E2 Surface Water Drainage	43
E3 Pollution Control	46

Part 2: Plot Design Standards for Offices, Food and Drink, Shop, Gym, Creche/Day Nursery and Outdoor Sports Facilities	48
F Plot and Building Design Standards	48
F1 Plots	48
F2 Building Size	48
F3 Height	48
F4 Building Materials and Roofing Principles	49
F5 Roofing and Plant	49
F6 Fixed Plant	49
F7 Ventilation and Extraction for Premises serving Hot Food	50
F8 External Building and Site Signage	50
F9 Sustainable Design Standards	51
F10 Creche/ Day Nursery (Use Class E(f))	51
F11 Outdoor Sports Facilities (Use Class F2 (c))	52
G Roads, Parking and Access	53
G1 Plot Access	53
G2 Plot / Amenity Hub Based Vehicle Servicing	53
G3 Parking Standards	53
G4 Cycle Parking	56
G5 Materials for Road Construction	56
G6 Standards for Footpaths and Cycleways	56
H Lighting	56
I Landscaping	58
I1 Street Furniture	58
I2 External Amenity Space	58
I3 Boundary Treatment	59
I4 Feature Elements	59
I5 Soft Landscaping	59
I6 Landscape Management Plan	60
I7 External Finishes	60
I8 Earth Shaping and Planting Regime	60
J Ancillary Infrastructure	60
K On Plot Drainage Standards	60
Part 3: Infrastructure Standards	62
L Highway Design Standards	62
L1 Internal Access Roads	62
L2 Road Drainage	64
L3 Pollution Control	66
L4 Materials	66
L5 Bus Routes and Facilities	67
L6 Soft Landscaping	67
L7 Lighting Requirements	69
L8 Signage	71
L9 Emergency Access	71

Design Code

M	Park Drainage Standards	71
M1	Surface Water Drainage	71
M2	Swales	71
M3	Standby Generator	73
M4	Pollution Control	73
M5	Operation and Maintenance	74
N	Land Raising	74
N1	Land Raising	74
O	General Landscaping Requirements	74
O1	Soft Landscape Specification	74
O2	Edge of Site	74
O3	Street Furniture, Boundary Treatments & Feature Elements	74
O4	Landscape Management Plan	76
P	Services Infrastructure	77
P1	Gas Supply	77
P2	Potable and Non Potable Water Supply	77
P3	Electricity Supply	77
P4	Telecommunications	77
P5	Fire Fighting Systems	77
P6	Utility Infrastructure	78
P7	Sub Stations, Pumping Houses and Other Non-commercial Buildings	78
P8	HGV Fuel and Wash Facilities Serving the Park	78

Appendices

Appendix 1:	Soft Landscaping Specification
Appendix 2:	Landscape Management Plan
Appendix 3:	Terms of Reference for London Gateway Services Ltd

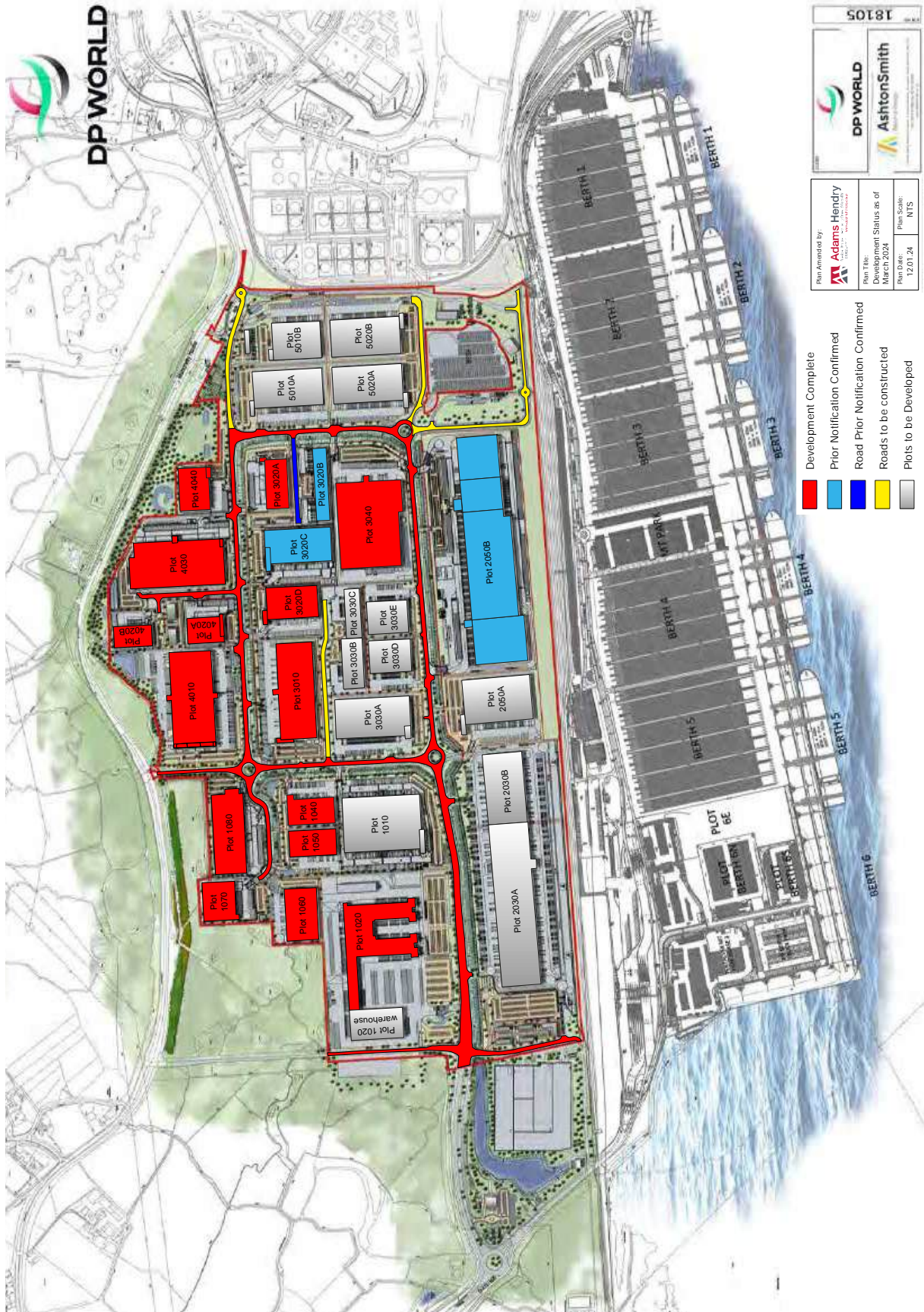
Introduction

1. This London Gateway Logistics Park Design Code forms part of the London Gateway Logistics Park Local Development Order 2 (referred to as LDO2) and must be read in conjunction with it.
2. The Design Code sets out the minimum standards to be applied to the building plots, infrastructure and amenity space on site developed pursuant to LDO2. Its purpose is to ensure that a high and consistent standard of design is maintained throughout the logistics park to provide a sustainable and stimulating working environment whilst at the same time enabling the diverse requirements of individual occupiers to be met.
3. Development must accord with all aspects of Part 1, Part 2 and Part 3 of the Design Code in order to benefit from the permitted development rights conferred by LDO2. For the avoidance of doubt, matters discussed in this Introduction are for contextual purposes only.
4. Where herein reference is made to adopted guidance, standards or codes, any such updates to that guidance, standard or code shall apply.

The Logistics Park

5. Figure 1 shows the development status of the Park as of March 2024 including the arrangement of routes and spaces that provide the structure for the Logistics Park. Strategically located primary infrastructure corridors allow ongoing plot-by-plot development of the site. The development layout of the remaining plots to be developed is indicative and intended to be flexible and responsive to existing and future commercial requirements. The release of plots and associated infrastructure requirements shall be in response to commercial need.
6. Development along the northern boundary is characterised by smaller plots of varying depth and buildings restricted in height to no more than 16m to provide a graduation in scale between surrounding areas and the core of the site where larger distribution and industrial buildings up to 42m are to be located. Plots along the southern edge of the Park have the potential to be directly linked to the national rail network.
7. Infrastructure corridors accommodate primary and secondary roadways, cycleways and footpaths, and provide service zones for utilities and treated foul and surface water drainage. The positioning of the primary infrastructure corridors informs the precise location and maximum size of the building plots within the development.
8. The Park is accessed via the London Gateway Access Road to the west of the Site. This access road also serves the London Gateway Port. Gates 1, 2 and 3 shall provide emergency access to the Manorway for emergency vehicles, buses and operational vehicles during emergency scenarios.
9. Amenity spaces shall be linked by an infrastructure network to create an environment that will, over the lifetime of the development, continue to provide an attractive location for prospective investors and occupiers.

Figure 1: Development Status



Design Code

Phasing and Design

10. The site is being developed on a plot-by-plot basis to suit operational requirements and accommodate commercial demand.

11. The rate of development of the logistics park is subject to market demand but shall continue to proceed in a controlled and co-ordinated manner in accordance with the Code of Construction Practice (CoCP) and associated legal agreements. Suitable plots to meet commercial requirements shall be released in a manner that does not compromise the delivery of the overall development and enables the necessary supporting infrastructure improvements to be bought forward in a timely manner.

12. Remaining building plots should be set out to maximise material efficiency, co-ordinate with standard warehouse racking systems as appropriate and ensure an appropriate development density can be achieved whilst maintaining parking, utilities, servicing, and hard and soft landscaping standards.

13. Where appropriate opportunities for public artwork to help orientate and provide interest to users shall be incorporated at key locations across the Park.

Part 1: Plot Design Standards General Industry, Storage and Distribution, Research and Development and Light Industrial

Part 1: Plot Design Standards for General Industry, Storage and Distribution, Research and Development and Light Industrial

A Plot and Building Design Standards

A1 Plots

A1.1 An area of smaller scale development plots adjacent to the northern boundary shall generally provide sites for units with smaller footprint areas and standard, lower clear internal heights. The remainder of the site shall be released for buildings up to 150,000sq.m.

A1.2 Plots in the Health and Safety Executive (HSE) Inner Zones (IZ) for the petrol storage site and gas pipelines as shown on Figure 2 shall only be released where:

- the number of occupants in each building is less than 100 and the building has less than 3 occupied storeys.
- it will be used for parking (cars or HGVs) serving the Plot.

A1.3 Plots within the HSE Middle Zone (MZ) or Outer Zone (OZ) as shown on Figure 2 shall be limited to B8 use.

A1.4 No building classed as a 'vulnerable building' within the meaning of Schedule 5 to the Explosives Regulations 2014 (as amended or replaced from time to time) shall be constructed within the 'Envelope of Safeguarding Distances SD3' as shown in purple on Figure 2. In accordance with the regulations this applies to any building that is:

- (a) of more than three storeys above ground or 12m in height constructed with continuous non-load bearing curtain walling with individual glazed or frangible panels larger than 1.5 sq.m and extending over more than 50% or 120 sq.m of the surface of any elevation;
- (b) a building of more than three storeys above ground or 12m in height with solid walls and individual glass panes or frangible panels larger than 1.5 sq.m and extending over at least 50% of any elevation;
- (c) a building of more than 400 sq.m plan area with continuous or individual glazing panes larger than 1.5 sq.m extending over at least 50% or 120 sq.m of the plan area; or
- (d) any other structure that, in consequence of an event such as an explosion, may be susceptible to disproportionate damage such as progressive collapse.

A1.5 Should the extent of the HSE Zones, or the Envelope of Safeguarding Distances, shown on Figure 2 be subsequently revised, the relevant and most up to date restrictions will apply.

A2 Building Size

A2.1 The maximum gross internal floorspace of any single building within Use Classes B2, B8, E(g)(ii) and E(g)(iii) shall not exceed 150,000sq.m.

A2.2 The minimum gross internal floorspace of any single building within Use Classes B2, B8, E(g)(ii) and E(g)(iii) shall not be less than 1,000sq.m (unless for ancillary uses). For the avoidance of doubt, where a building provides for more than one business unit (i.e. a multi occupier building), each unit may comprise less than 1000sq.m so long as the overall building is not less than 1000sq.m total floorspace.

A2.3 'Gross Internal Floorspace' is equivalent to 'Gross Internal Area' as calculated in accordance with the RICS Code of Measuring Practice (sixth edition) or any revision thereto.

A2.4 Mezzanine floors shall contribute towards overall gross internal floorspace unless they are solely to provide for safe and efficient access to stacked or stored goods.

A2.5 Buildings shall maintain a minimum separation distance of at least 8m to the plot boundary.

A3 Height

A3.1 Development shall not exceed the maximum height for the zone/plot in which the building is to be located as shown on the Height Zoning Plan (Figure 4) and shall not exceed the height in AOD set out below:

- 16m zone = 21.1 AOD
- 24m zone = 29.1 AOD
- 28m zone = 33.1 AOD
- 42m zone = 47.1 AOD

A3.2 Building height shall be measured from the warehouse finished floor slab (being generally between 1000mm and 1500mm above external levels to accommodate mechanical handling equipment – see Figure 3). Within this height there will be a clear internal height to haunch, roof pitch and (if required) 1100mm roof edge safety barrier zone. This measurement excludes nominal vent and flue protrusions up to 700mm above roof covering.

Finished Floor Levels

A3.3 Where dock level bays are required, the finished floor level (FFL) within the buildings shall be set between 1000mm and 1500mm above the ground level in the dock levelling bays.

Figure 3: Building Height

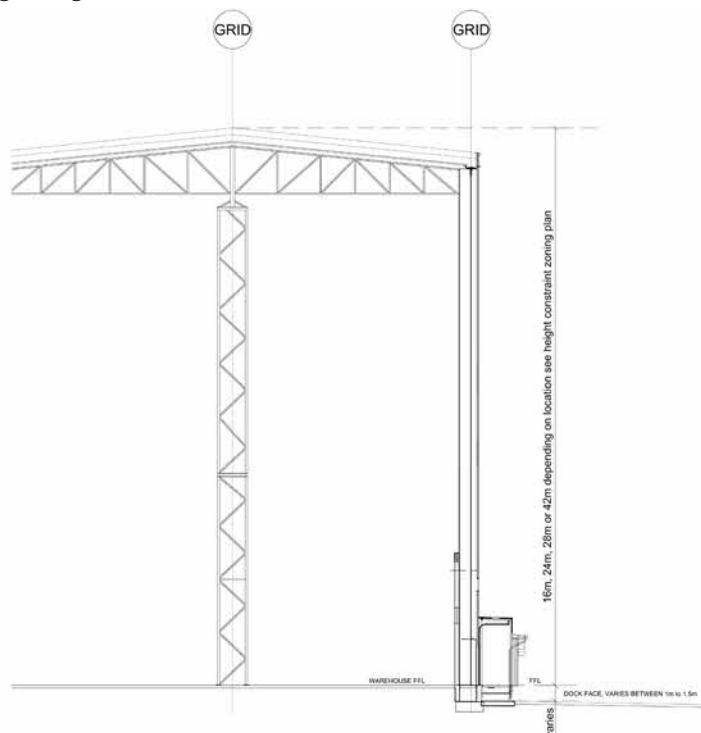
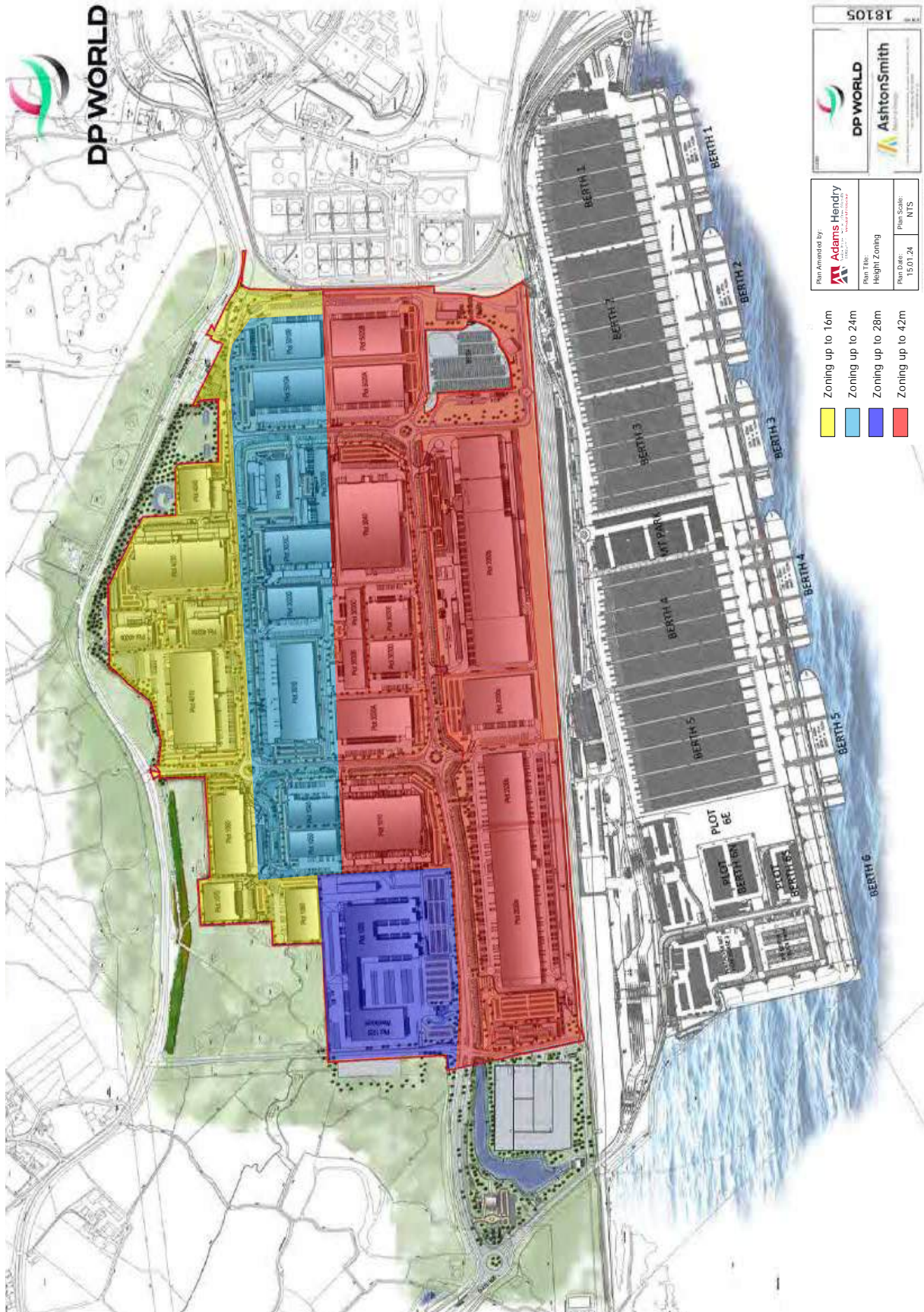


Figure 4: Height Zoning Plan



A4 General Cladding and Roofing Principles

A4.1 A palette of different materials shall be used in order to achieve articulation and texture in the overall appearance of the area.

A4.2 The visual impact of the colours and finishes of wall and roof cladding materials shall be considered in relation to the background and context of the building.

A4.3 Where buildings over 100,000sq.m are proposed, colours and tones that differ from those of adjacent buildings shall be encouraged to help break up the collective visual mass of a group of buildings and give visual texture to the area when viewed from long distances.

A4.4 Elevations shall be divided horizontally above the door zone reducing the overall scale of the walls. A minimum of two different cladding profiles laid either horizontally or vertically and two complimenting cladding colours shall be used on both the warehouse and office elevations to achieve a level of consistent elevational treatment around the Park development. Individual occupier operational requirements for canopies over docking bays (if required) shall provide additional articulation of the elevations. Smaller areas of corporate colouration shall be reserved for office elevations fronting onto the infrastructure corridors.

A4.5 Elevations shall be punctuated with a range of coloured sectional overhead loading and access doors either at grade or in conjunction with lowered dock levelled service yards. At least one additional colour shall be selected from a manufacturers standard range of colours to compliment the warehouse cladding colour scheme and tie in with corporate colours on the office elevations.

A4.6 For buildings in the northern buffer zone as shown on Figure 5, the elevations that face sensitive surrounding areas shall be light in colour and shall reflect the treatment of other elevations as a minimum. The use of natural materials such as timber cladding on office elevations is encouraged. This design approach, along with the strategic use of landscaping, will allow the buildings to blend in with their surroundings. Elevations that have aspects onto the interior of the site can be of brighter colours to highlight company identity and complement port and introspective views. Where practical, the 'high bay' areas of distribution units to western and northern park boundaries shall be orientated towards the centre of the Site.

A4.7 Large industrial and warehouse units shall typically be constructed from either prefabricated composite insulated metal panels or sheets of profiled steel or aluminium, spanning between primary or secondary steel frames and cladding rails.

A4.8 External wall cladding shall be either composite panels, built up systems or similar fit for purpose cladding makeup. Colours shall be from the standard range set out below, achieving a 'u' value at least in compliance with building regulations.

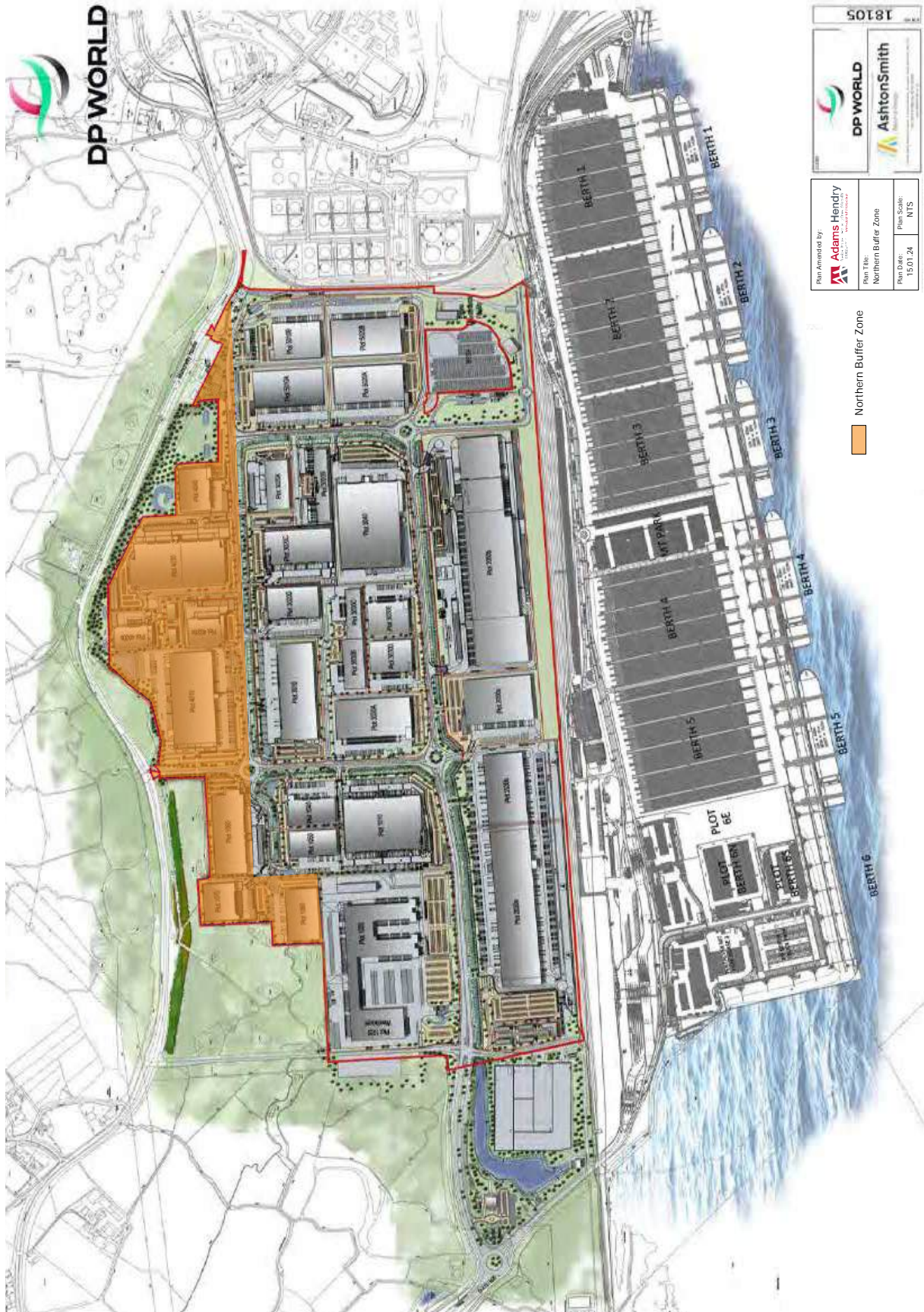
HPS200 Cladding Finish

Colorcoat HPS200 Ultra (or similar) with Galvalloy substrate and Confidex Guarantee from Tata Steel Standard colours with a minimum 25 year guarantee from the Signature, Classic and Matt colour ranges (appropriate in coastal locations) shall be selected.

Prisma Cladding Finish

Colorcoat Prisma (or similar) with Galvalloy substrate and Confidex Guarantee from Tata Steel Standard colours with a minimum 25 year guarantee from the Solid and Metallic colour ranges (appropriate in coastal locations) shall be selected.

Figure 5: Northern Buffer Zone plan



A4.9 Doors and dock sheltered openings shall be set within a plinth zone of cladding or pre-cast concrete panels designed to withstand or be protected from increased levels of impact damage and toned to integrate with the components at the base of the building and to reduce the overall visual mass of the structure.

A4.10 Vertical features such as exposed rainwater pipes and panel joints may be used to reduce the horizontal extent of any elevation and provide points of visual reference.

A4.11 Any extension or alteration to a building shall have a similar external appearance to the existing building.

A5 Dock Levellers and Level Access Doors

A5.1 Dock levellers shall be provided, as required, with flexible shelters to minimise the ingress of air and water into the building. Shelters shall generally be black in colour. Insulated sectional overhead doors shall include safety windows and shall be coloured to suit the overall elevational treatment, or reflect corporate identity. The low level position of these features on the elevation shall allow the perimeter landscaping to provide effective screening.

A6 Ancillary Office Accommodation

A6.1 Ancillary offices shall be designed to maximise the use of natural ventilation and light. Double depth offices with links into the main warehouse area, where required, would be acceptable.

A6.2 Ancillary offices shall be positioned on prominent elevations or corners of buildings fronting onto infrastructure corridors. Office elevations shall be distinctive to assist legibility for example through the use of entrance canopies or timber cladding. A freestanding office pod may also be provided on-plot provided it is 'purpose designed' to compliment the design of the principal building.

A6.3 Glazing shall be provided to all floors of the ancillary offices. Entrance door sets for staff and visitors may either be combined or separated to suit operational

A7 Roofscape and Plant

A7.1 Roof planes set at a minimum pitch of 3 degrees and maximum pitch of 10 degrees shall generally be specified with roof lights at 15% where operational requirements permit, to provide natural light to the warehouse. Alternatively equivalent natural light may be provided by the inclusion of some translucent wall panels. Roof mounted plant excluding roof mounted PV, flues and vents shall require screening behind a parapet wall, or integration within office or warehouse components to maintain clean horizontal roofscapes.

A7.2 External roof cladding shall be either composite panels, built up systems or similar fit for purpose cladding makeup. Roof form and cladding colours should allow for variation in order to disaggregate the mass of roof areas but shall be light in colour. Colours from the standard range of colours referred to in paragraph A4.8 shall be selected and finished in non-reflective coatings.

Fixed Plant

A7.3 Fixed plants such as chiller units on noise sensitive elements (considered most likely to be offices and restrooms) within and between each plot shall comply with appropriate British standards for these noise sensitive spaces, including BS8233:2014.

A7.4 The following measures shall be implemented:

- Primary outdoor fixed plant noise sources (e.g. chiller units) shall be located on the facade of warehouses facing into the site (south or east façade) or behind acoustic screening sufficient to cut the line-of-sight between source and the nearest residential receptor. Acoustic screening, where provided, shall have a minimum surface mass of 10 kg/m² and shall meet with the requirements of paragraph C2.8 of this Code.
- The cumulative sound power level from all outdoor fixed plant systems on each plot shall not exceed 105 dB L_{WA}.
- Noise from air handling ventilation grilles shall be suitably attenuated through the provision of attenuators within the ductwork. The following sound pressure limits shall not be exceeded:
 - Grilles on the west elevation of the western and northern boundary plots shall not exceed 55 dB L_{Aeq,T} at 1m;
 - Other grilles within plots located adjacent to the north and west LDO2 boundary shall not exceed 60 dB L_{Aeq,T} at 1m; and
 - Grilles in all other locations: 70 dB L_{Aeq,T} at 1m.
 - The above sound pressure limits apply for elevations with ventilation grilles up to a maximum grille area of 20 m² per elevation.
 - Where a greater grille area is required, the above sound pressure limits shall be reduced by 10*log₁₀(A/20) dB where A is the proposed total grille area per elevation.
- When considering the above, plot operators shall have due regard to the Control of Noise at Work Regulations and any requirement to control noise to ensure audibility of life-safety alarms or evacuation alerts.

A7.5 General working practices shall be put into place to minimise the levels of noise including:

- Awareness training for all staff on noise, particularly control of noise at night.
- Audit of the noise being generated during operations by foremen and steps taken to enhance the measures to control noise.
- The use of radios for communications instead of verbal instructions.
- Consideration of the use of alternatives to tonal reversing alarms such as through banksmen to avoid the need for alarms, or through the use of broadband reversing alarms.
- Controls of the use of vehicle horns (for emergency purposes only).

A8 Gatehouses

A8.1 Gatehouses shall be constructed to the material specification or similar standard to that set out in Section A4.8.

A9 External Building and Site Signage

A9.1 All signage and advertisements on the Site shall be subject to the Town and Country Planning (Control of Advertisements) (England) Regulations 2007 as amended.

A10 Sustainable Design Standards

Decentralised, Renewable and Low-Carbon Energy Generation

A10.1 All development shall be designed so as not to preclude connection to a decentralised, renewable or low carbon energy supply where possible.

A10.2 As a minimum, new development shall provide 20% of predicted energy requirements from all sources of decentralised and renewable or low-carbon energy, unless it can be demonstrated that it is not feasible or viable.

BREEAM Standards

A10.3 Where appropriate buildings shall achieve as a minimum BREEAM Outstanding or other such revised standard as may be included in the Thurrock Local Plan or other local policy documents.

A10.4 These requirements may be relaxed where the developer is able to prove that they are not economically viable, rendering development of the site undeliverable.

A10.5 Where a building is to be extended or subject to a change of use, it should achieve no less than the equivalent BREEAM standard to that of the original building.

B Roads, Parking and Access

B1.0 The following design standards shall apply to the construction of internal plot access roads, plot-based vehicle parking and servicing.

B1 Plot Access

B1.1 The design of access roads into individual development plots shall comply with the standards for access visibility set out in the Design Manual for Roads and Bridges (DMRB).

B1.2 Where practical or viable, pedestrian, cycle and car access to individual plots from the internal site highway network shall be designed to provide separation from goods vehicles and rail routes, for safety and security purposes and to prevent queuing of goods vehicles on the estate roads.

B1.3 Where practical or viable, plot accesses onto the road will be a minimum of 90m apart when on the same side of the road.

B1.4 To meet health, safety and security requirements on development plots, footpaths and cycleways shall be terminated at the plot threshold and internal plot layouts shall be designed to accommodate individual occupier requirements whilst maintaining safe routes to the buildings for pedestrians.

B1.5 Security fences or gates shall not obscure sight lines of any junction on the estate roads or any vehicular access to the highway.

Gatehouses

B1.6 Security gatehouses and/or security gates shall be designed to accommodate incoming queuing goods vehicles whilst maintaining a free flow of cars and cycles to designated parking

areas. For plots providing greater than 15,000sq.m GIA of total floorspace, security gatehouses and/or security gates at the entrance to individual plots shall be set back to enable at least two HGVs to pull off the highway to avoid queuing on any of the infrastructure corridors.

B2 Plot Based Vehicle Servicing

B2.1 The internal plot circulation may be designed to allow cross docking to the larger units. Full site circulation and perimeter access for fire and service vehicles shall be maintained on larger units over 24,000sqm in compliance with Building Regulation requirements.

B2.2 Smaller units may be designed with single sided access and a reduced percentage of perimeter circulation that is accessible by fire and rescue service vehicles in accordance with Building Regulation requirements.

B2.3 HGV parking and yard circulation areas shall be in accordance with the recommendations of the Freight Transport Association - Designing for Deliveries 2016 (or as otherwise amended). HGV parking spaces shall be in accordance with the standards in Table 5. Articulated HGVs shall have a 20m pullout/yard circulation zone, unless tracking drawings are provided demonstrating that suitable HGV turning and manoeuvring can be achieved within a reduced pull out area.

B2.4 HGV circulation on plot shall be designed to allow free flowing circulation to all external areas of the building required by the unit operator, either through the service yards or via a minimum 7.3m wide plot circulation roads.

B2.5 Where fire escape routes from buildings open onto service yard areas, protected escape steps and refuges shall be provided between lorry docking and parking bays.

HGV Fuel facility

B2.6 All areas of hard standing shall be provided with a surface water drainage system fitted with oil and petrol interceptors and installation of a penstock(s) as appropriate for spill management.

B2.7 On plot HGV fuelling facilities shall not exceed a maximum plot coverage of 3% or 3,000 sq.m whichever is the lesser. Fuel storage tanks shall be double skinned and may be either below or above ground. Fuelling pumps shall be covered with a canopy with a minimum clear height of 6m and a maximum height to the top of the canopy of 9m. On plot HGV fuelling facilities shall be located in service yards or adjacent to on-plot circulation routes provided they are appropriately screened with a hedge or fence of at least 2m.

HGV Wash facility

B2.8 On plot HGV wash facilities shall not exceed a maximum plot coverage of 1% or 1,000 sq.m whichever is the lesser. Wash facilities may either be open or covered with a maximum height to the top of the enclosure of 7m. However, surface water shall be excluded from the wash system, so a covered area would be preferable. Wash facilities shall be contained and not connected to the plot surface water drainage, unless agreed in writing with the Environment Agency. Alternatively, this run-off shall be treated as trade effluent, and shall be isolated and taken off site for disposal at a licensed facility.

B3 Parking Standards

B3.1 Individual development plots shall be designed to achieve optimum vehicle parking requirements and to prevent vehicles queuing on the highway while waiting to enter the development plots.

B3.2 Car parking shall be provided on each plot in accordance with the maximum standards specified in Tables 1 – 5 below and shall be made available for use during the whole of the time that any part of a building is open to any persons employed within the building or to persons visiting the building. These standards will apply until such time as they are updated by Thurrock Council in which case the updated standards would apply.

B3.3 Dedicated and conveniently located parking spaces with charging points and facilities for the charging of electric vehicles shall be provided. Standards for electric vehicles, cycle, blue badge holders and motorcycles are minimum standards.

B3.4 Passive charging spaces shall be activated in line with occupier demand having regard to the use of car parking spaces dedicated for electric vehicle parking which is to be surveyed and reported in the annual survey in line with the Travel Plan.

B3.5 If ancillary office accommodation is included in the development, then a E(g) parking standard shall be applied for that area.

B3.6 Where a development incorporates two or more land uses to which different parking standards are applicable, the standard appropriate to each use shall be applied in proportion to the extent of the respective use.

B3.7 The width of standard parking bays with end bays adjacent to solid structures shall be increased by 1m to allow for manoeuvrability on entry/exit to and from the vehicle. Clear directional marking signs shall be set out using suitable signs and surface arrows.

B3.8 Landscaping shall be incorporated into parking areas as set out in C4 of this Design Guide.

Table 1 - Parking Standards for use class B2 General Industrial

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 50 sq.m	50 spaces or fewer = 1 space with charging point Over 50 spaces = 2% of total spaces with charging points. Passive provision for all remaining spaces regardless of total number.	1 space per 250 sq.m for staff plus 1 space per 500 sq.m for visitors. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 2 spaces or 5% of total capacity (whichever is greater) Over 200 car spaces = 6 spaces plus 2% of total capacity	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 2 - Parking Standards for use class B8 Storage and Distribution

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 150 sq.m	1 space with charging point Over 50 spaces = 2% of total spaces with charging points Passive provision for all remaining spaces	1 space per 500 sq.m for staff plus 1 space per 1000 sq.m for visitors. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 2 spaces or 5% of total capacity (whichever is greater) Over 200 car spaces = 6 spaces plus 2% of total capacity	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 3 - Parking Standards for use class E(g) ((i) Offices, (ii) Research and Development, (iii) Industrial Processes)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 30 sq.m	50 spaces or fewer = 1 space with charging point Over 50 spaces = 2% of total spaces with charging points Passive provision for all remaining spaces	1 space per 100 sq.m for staff plus 1 space per 200 sq.m for visitors. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 2 spaces or 5% of total capacity (whichever is greater) Over 200 car spaces = 6 spaces plus 2% of total capacity	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

B3.9 In addition to providing parking for disabled drivers as described in the code of practice BS8300:2009 (including amendments), a parking priority scheme for car sharers shall be implemented in line with the requirements of the LDO2 Travel Plan. Space for people with disabilities shall be located adjacent to entrances and shall be marked with lines and the International Symbol for Access.

Table 4: Car Parking Dimensions

Type	Dimensions
Standard	2.5m x 5.5m
Blue Badge	3.9m x 6.5m

B4 Lorry Parking

B4.1 HGV parking shall be based on operational requirements. Parking bay dimensions shall be in accordance with the standards set out in Table 5.

Table 5: Lorry Parking Bay Dimensions

Type	Dimensions
Minimum for Vans	3.5m x 7.5m
Articulated HGVs	3.5m x 17m
Rigid HGVs	3.5m x 12m

B4.2 There shall be no parking on infrastructure corridors.

B4.3 For development in excess of 30,000 sq.m where 24-hour operation is required, welfare facilities (comprising showers, changing facilities and a food preparation area) shall be provided within the plot for drivers of commercial vehicles based on an assumption of one driver/ commercial vehicle per 3,500 sq.m If such facilities are unable to be provided on plot (or if there is a shortfall in on plot provision), alternative facilities shall be provided off-plot at an equivalent rate.

B5 Cycle Parking

B5.1 All cycle parking shall:

- be secure and covered;
- be conveniently located adjacent to entrances to buildings;
- enjoy natural observation;
- be easily accessible from roads/and or cycle routes;
- be well lit;
- be located so not to obstruct pedestrian and cycle routes.

B5.2 Sheffield stands shall be provided. Provision shall be made for lockers, changing and shower facilities. The location, type and dimensions for cycle parking shall accord with the Essex Parking Standards 2009 or other such standards adopted by Thurrock Council.

B5.3 Cycle stands shall be manufactured in galvanized steel or brushed grade 316 stainless steel and root fixed below ground. They may include a horizontal bar for additional strength and security and should allow for two bikes per unit and be of hooped form.



B5.4 Cycle shelters shall be manufactured using a galvanized steel frame with galvanized steel, powder coated steel, laminated or tempered safety glass or FSC timber infill and roof

panels. Where appropriate shelters shall include lighting elements to ensure safety and visibility for users.



B6 Materials

B6.1 Materials for road construction shall be compliant with the appropriate British Standard or other relevant specification.

B6.2 Development plot entrances shall be concrete, block paving or asphalt.

B6.3 Standard profile concrete kerbs shall be used adjacent to footpaths / cycleways and within car parking areas. High profile concrete kerbs shall be used within areas susceptible to HGV damage.

B6.4 Road marking and parking bays shall be demarcated in white or yellow thermoplastic paint, or alternatively, where the parking area surface comprises block paving, via the use of paving blocks of a distinctly different colour. Kerbs shall be used to provide protection to pedestrian areas and prevent damage to landscaped areas by vehicles.

B6.5 When available, suitably recycled, locally sourced or 'green energy' materials shall be used where these conform to the necessary performance standards or specification.

B7 Standards for Footpaths and Cycleways

B7.1 Shared use footways/cycleways shall be a minimum width of 3m.

B7.2 Where footways/cycleways are liable to vehicle over-run, materials shall be restricted to:

- Bituminous materials to DMRB standards unless there is a need to match existing paths surfaced with Hot Rolled Asphalt (HRA).
- Resin bound material - Highways Authorities Product Approval Scheme (HAPAS) certified with a minimum design life of 25 years.
- Where appropriate, concrete block paving, including tumbled blocks, 100mm x 200mm x 80mm.

B7.3 Where the footway will not be over run or otherwise damaged by vehicles the following paving may be used in addition to that noted above.

- 400mm x 400mm x 65mm standard concrete paving slabs.
- 400mm x 400mm x 65mm textured concrete paving slabs.

B8 Lighting

General Considerations

B8.1 The following standards apply to all exterior lighting across the site. References to lighting equipment are indicative and may be amended subject to achieving the stated performance requirements.

B8.2 Lighting equipment when installed, shall meet the lighting constraints defined in Institution of Lighting Professionals (ILP) Guidance Notes GN01/21 for the control of obtrusive light for Environmental Zone 2 applicable to the location of the site (see Figure 6). Additional care shall be taken to minimise light spill and glare from any lighting installed by ensuring the correct luminaire is selected and installed correctly in line with the recommendations within CIE 150: 2017 and ILP GN01/21. The design shall ensure the mounting heights employed are the minimum necessary to achieve the lighting performance requirements. Horizontal illuminance levels shall not exceed 1.0 lux at 25m and 0.1 lux at 50m from the perimeter site boundary to the Park. When lighting levels are measured, meter readings shall be within tolerance as per BS667:2005 Table 2. Lighting calculations shall be provided with a maintenance factor of 1.0 to show initial luminous flux and building surfaces shall be modelled to reflect the construction and colour of cladding. A drawing showing isolux contours shall accompany a prior notification submission. The management company, London Gateway Services Limited (LGSL), shall monitor illuminance levels at 50m intervals at points 25m and 50m from the northern and western perimeter site boundaries on at least one occasion between 1 November and 1 March each year and monitoring reports shall be made available to the Ecological Advisory Group (EAG) on request. LGSL shall take whatever steps necessary to ensure compliance with the standards set out above. In the event that any remedial action is required it shall be completed within 6 months of receipt of monitoring results and LGSL shall undertake further monitoring within 2 months of remedial action to ensure that the levels are being complied with.

B8.3 Lighting controls shall be introduced so that all luminaires can be dimmed or switched off in defined work areas should operational conditions allow, subject to health and safety requirements. Examples being staff parking areas when not in use or outside of shift change times, perimeter pathways, yard areas, and circulation areas when not in use at a reduced lighting level.

B8.4 Lighting within the development shall use an LED light source with a Colour Rendering Index, Ra >70 throughout. LED chipsets should have a Correlated Colour Temperature (CCT) lower or equal to 3000K.

B8.5 All luminaires will utilise LED chipsets with a range of optical properties to provide area lighting, roadway lighting and pathway lighting. Column mounted "blade" style luminaires are preferred for plot circulatory roads, footpaths or car park lighting for aesthetic reasons. Lighting across the site shall maintain similar appearance.

Lighting Controls

B8.6 The exterior lighting shall be centrally managed with control and self-monitoring systems. Controlling luminaires should have presence detection and light sensitivity. Typical systems include but are not restricted to Telensa, Thorlux Smartscan and blue tooth low energy (BLE) meshing systems.

Power Distribution

B8.7 The exterior lighting shall be supplied by a private cable network fed from feeder pillars mounted externally or from distribution panels within the buildings.

B8.8 Where lighting units are mounted on walls of buildings, cabling shall be installed within corrosion and impact resistant conduit or trunking.

B8.9 Power supplies and cabling for lighting within the Park shall be fully segregated from Thurrock Council owned lighting equipment.

B8.10 Columns shall be mounted a safe distance from carriageways for maintenance access, free pedestrian and cycle passage and to reduce collisions in accordance with the requirements of clauses 3.3 and 3.4 respectively of TD501 of the Design Manual for Roads and Bridges (DMRB).

Lighting Classes

B8.11 The lighting classes for roads, footways and cycleways shall be as set out in BS 5489-1: 2020 Code of Practice for the Design of Road Lighting – Part 1: Lighting of roads and public amenity areas, or as subsequently modified, and BS EN13201:2015 Road Lighting. The lighting classes for outdoor work areas would be as set out in BS EN 12464-2:2014 Light and Lighting – Lighting of workplaces; Part 2: Outdoor work places.

On Plot Circulatory Roads

Performance Requirements

B8.12 The lighting of on plot circulatory roads shall be designed to lighting class P2 of BS EN 13201-2:2015. The performance requirement is:

Average illuminance, Eav:	10.0 to 15.0 lux
Minimum illuminance, Emin:	2.0 lux minimum

Equipment Details

B8.13 Light Source: LED with output to meet required class without overlighting with area optics such as the Thorlux Starbeam or equivalent.

Column Mounting:	8.0m - 10m with spacing and height optimised to meet the specified lighting class.
Mounting attitude:	Luminaires to have a default of 0 deg tilt to minimise upward light, however can have upto a 5 degree inclination to prevent excess backspill.

Installation Geometry

B8.14 Single Carriageway: Lighting columns shall be mounted in a single sided arrangement at the rear of the cycleway/footway with clearance as stated in BS5489-1:2020 at a spacing optimised to meet the specified lighting class.

Lorry Docking and Loading Areas

B8.15 The lighting shall be in accordance with BS EN 12464-2: 2014 and in accordance with CIBSE LG06.

Performance Requirements

Average illuminance:	50 lux
Overall Uniformity, U _o :	0.40
Glare Rating Limit, GRL:	50

B8.16 Glare to a driver reversing a vehicle shall be avoided and shadowing caused by the vehicle load shall be considered. Glare visible outside the perimeter site boundary of the Park shall be avoided.

Lighting Arrangement

B8.17 The lighting shall comprise column mounted or flood style LED luminaires such as the Thorlux Starbeam, with an output and spacing optimised to meet the lighting requirements. All floodlighting at this level should be mounted with a 0 degree tilt to avoid emitting upward light pollution or introducing glare. Spill shields to the rear of the fitting should be installed where optics may present excessive backward light.

B8.18 The lighting may be supplemented where necessary with wall mounted luminaires such as the Thorlux Realta 100% downlight with a lumen output of between 2000 and 3000 lumens at a maximum mounting height of 5.5m between each docking gate. Building mounted luminaires shall be at the lowest height to achieve the necessary illuminance / uniformity criteria. Care shall also be taken to ensure the luminance of building facades, taking into account the final cladding finish and reflectance, does not exceed that set out within ILP Guidance Notes for the Reduction of Obtrusive Light GN01:21 for the relevant Environmental Zone.

B8.19 In addition to the fixed exterior lighting, local adjustable lighting shall usually be provided at the docking gate within the building. This shall be switched locally and shall not operate once the docking gate is vacated.

Distribution and Circulation Areas

Performance Requirements

B8.20 The lorry circulation routes shall be lit to an average illuminance of 20 lux with a minimum overall uniformity of 0.40 in accordance with 5.1.3 of BS EN12464-2:2014 and CIBSE LG06.

Lighting Arrangement

B8.21 Where the circulation route lies between the HGV parking area and the loading dock area, the lighting installed for those areas shall also provide sufficient lighting of the circulation route.

B8.22 Where the circulation route is adjacent to warehouses, a roadway optic column mounted luminaire such as the Thorlux Starbeam or equivalent with an output and spacing to achieve the specified lighting class may be used.

B8.23 Where there is no building directly adjacent to the circulation route, a roadway optic column mounted luminaire such as the Thorlux Starbeam or equivalent shall be used matching the style of lighting units employed on the access roads and car parks. Mounting heights and spacing should be optimised to meet the required lighting class.

B8.24 For wide circulation areas or areas designated as yard areas, perimeter lighting facing inwards shall be provided by column mounted luminaires such as the Thorlux Starbeam or equivalent with an output matching the style of other luminaires proposed on access roads and car parks. In very wide circulation areas supplementary lighting should be installed to 8.0m columns facing outwards to achieve required lighting levels. Columns should be protected from accidental damage.

Weighbridges and Fuelling Areas

Performance Requirements

B8.25 The level of lighting in these areas shall be increased compared to that on the general circulation areas. For the fuelling areas it may be necessary to use equipment rated for use in hazardous zones due the presence of explosive vapours unless the lighting is located outside of the hazardous zone. Lighting for specific tasks within these areas shall comply with the requirements of Table 5.6 of BS EN 12464-2:2014 and CIBSE LG06.

Average illuminance:	50 lux (external) / 150 lux (under canopy)
Overall Uniformity, U _o :	0.40
Glare Rating Limit, GRL:	50 (external) / 45 (under canopy)

Lighting Arrangement

B8.26 The lighting of weighbridges shall be provided by column mounted luminaires with such as the Thorlux Starbeam or equivalent with an output and mounting height matching the style of other luminaires proposed on access roads and car parks and optimised to meet the requirements of the chosen lighting class.

B8.27 The lighting of on plot HGV fuelling areas shall be provided by bulkhead type LED luminaires attached to the underside of the canopy.

Gatehouses

Performance requirements

B8.28 Gatehouses shall be lit to an average illuminance of 100 lux at ground level with a vertical illuminance at the level of the vehicle driver. Gatehouse security lighting shall be in accordance with the recommendations provided in sections 3.2.4 of CIBSE SLL Lighting Handbook (2018) as may be amended.

B8.29 The plot entrance shall be lit by multiple luminaires so that the loss of one luminaire will not seriously degrade the lighting available to the guard on duty. The lighting shall be positioned to enable sufficient illumination for the guards and CCTV to see the number plates of vehicles approaching the entrance.

Lighting Arrangement

B8.30 Lighting shall be provided by column mounted luminaires such as the Thorlux Starbeam or equivalent with an optimised output mounted on 8.0m -10m columns using an arrangement of twin and four way spigots, matching the style of other luminaires proposed on access roads and car parks. Consideration shall be given to providing back-up power supplies for these lighting units in the event of a power outage.

Car and Van Parking Areas*Performance Requirements*

B8.31 The lighting of the car and van parking areas shall meet the requirements in Table 5 of BS 5489-1:2020 for outdoor car parks with medium traffic.

B8.32 The performance requirements shall be as follows:

Average illuminance, Eav:	10 lux
Overall Uniformity, Uo:	0.25 minimum

Equipment Details

Light Source:	LED luminaire providing an optimised output such as the Thorlux Starbeam or equivalent based on lighting class.
Optics:	Area Type
Column Mounting:	6.0m - 8m column, single & twin spigots where required.
Mounting attitude:	A default of 0 degree tilt should be used however a maximum of 5 degree can be used to achieve the required lighting class and reduce backwards light pollution while meeting the requirements of GN01.

Installation Geometry

B8.33 Lighting columns shall be provided around the perimeter of a car park and where necessary, within the central area of the parking area. Where lighting columns are located within the central area they shall be generally located on the raised islands at the end of parking space rows, or where it is necessary to position them between parking spaces, with barrier protection to protect vehicles manoeuvring into them.

Lorry Parking Areas*Performance Requirements*

B8.34 The illuminance requirement shall be for 20 lux average and 5 lux minimum in accordance with “HSG 38 – Lighting at work” (HSE 1997).

B8.35 The lighting columns shall be positioned so that they will not be vulnerable to impact from HGVs reversing into the parking space and will not obstruct the tailgate of the trailer unit. They shall not cause glare visible outside the perimeter site boundary of the Park.

Lighting Arrangement

B8.36 The lighting shall comprise columns of 8.0m – 10m optimised maximum height positioned at the rear/perimeter of the parking area and located centrally between parking spaces at an optimised spacing. Glare shields shall be fitted to luminaires as required to reduce backwards light pollution and to provide a full cut-off of light above the horizontal. Columns shall be protected with barriers against HGV collision and not obstruct the tailgate of the trailer unit. Circulation routes within this area shall be lit from the designated column positions.

The performance requirements shall be as follows:

Average Illuminance: EAV 20lux
Overall Uniformity: UO 0.25

Equipment Details

Light Source: LED luminaire with optimised output such as the Thorlux Starbeam or equivalent
Optics: Area Type
Column Mounting: 8.0m -10m column single and twin spigots where required.
Mounting Attitude: A maximum of 5 degrees to reduce backward light pollution and achieve required lighting class while meeting the requirements of GN01.

Boundary Security Lighting

B8.37 Security lighting shall be in accordance with the principles and guidance detailed in Chapter 18 of the CIBSE SLL Lighting Handbook (2018) as may be amended.

Performance Requirements

B8.38 The lighting provided for security at boundary fences for secure areas shall provide an average illuminance of 5 lux with an overall uniformity of 0.1 at ground level on either side of the fence. Light sources with a colour rendering index, Ra, of at least 70 shall be used to provide good identification of colours. As set out at B8.2, horizontal illuminance levels shall not exceed 1.0 lux at 25m and 0.1 lux at 50m from the perimeter site boundary to the Park. When lighting levels are measured, meter readings should be within tolerance as per BS667:2005 – Table 2.

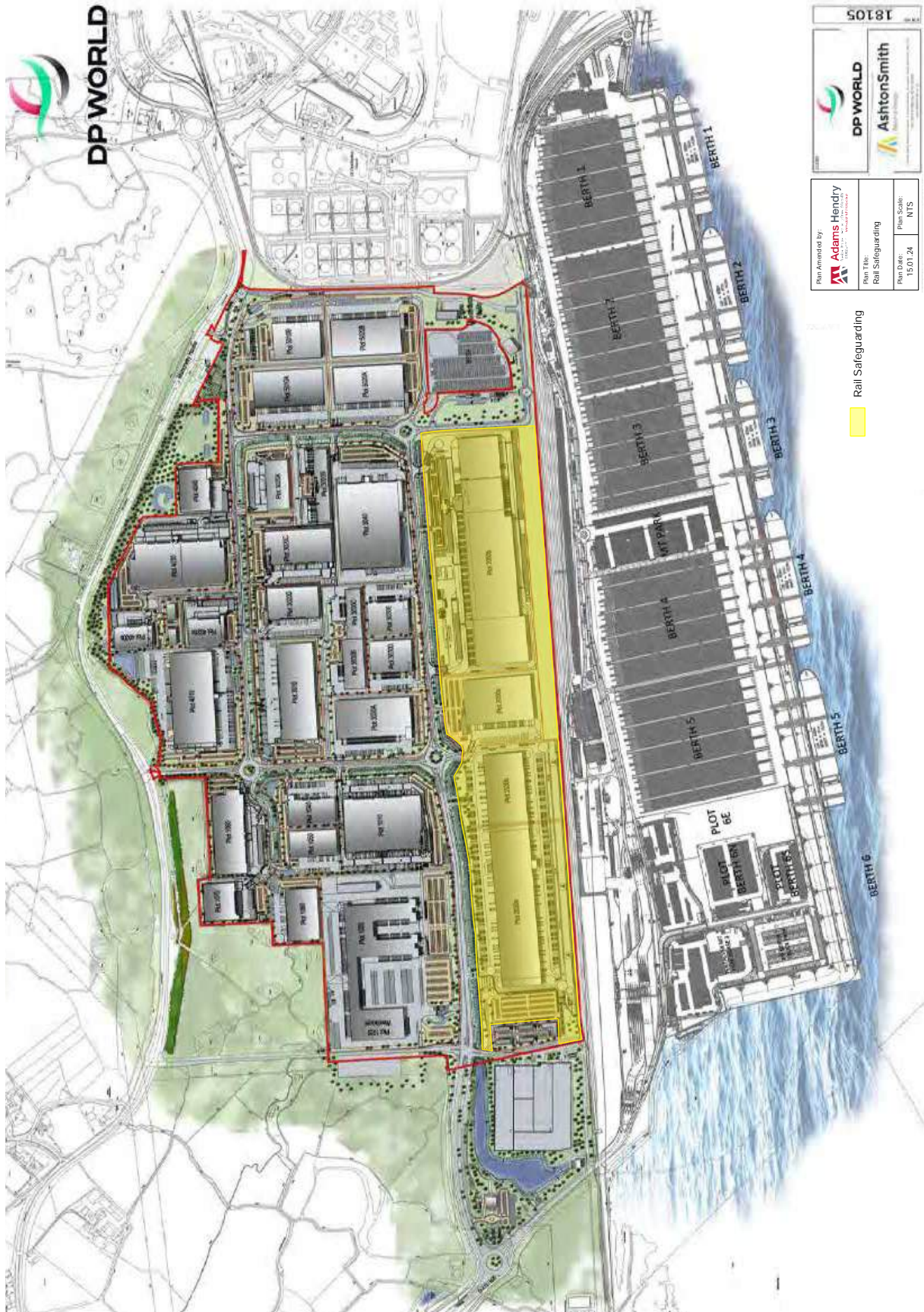
Lighting Arrangement

B8.39 Where buildings and other obstructions result in dark shadowing along the boundary, security lighting shall be provided by the lowest column to achieve the required results with columns up to 6.0m height, using luminaires up to 13,000 luminaire lumen output with a forward throw such as the Thorlux Starbeam or equivalent. The exact column height shall be dependent on the geography of the site and the type of fence construction. Where no building exists opposite the development, security light shall be provided with the use of 100% down light wall mounted luminaires at a maximum height of 3.0m.

B9 Plot-by-Plot Rail Connection

B9.1 No development shall take place within the Rail Safeguarding Area identified on Figure 7 that would prejudice the provision of rail access to the national rail network via the Thameshaven Branch Line. Sufficient space is required to accommodate the rail sidings and loading/unloading facilities as demonstrated with full tracking details of any container reach stacker (if proposed).

Figure 7: Area within which 50ha of land is to be safeguarded for Rail Access



C Landscaping

C1 Street Furniture

C1.1 Street furniture (e.g. seating, cycle storage etc.) shall be in accordance with requirements set out at Part 3, Section O3 of this document.

C2 Boundary Treatments

C2.1 Individual occupiers shall be responsible for on site security of their development plots. Fencing to the perimeter of each plot shall be designed to be unobtrusive within the perimeter of the landscaped zone, with the minimal amount of impact on landscaping unless the plot boundary is adjacent to another plot boundary in which case a shared perimeter boundary fence shall be set in a 1m gravel margin (see paragraph C4.8).

C2.2 Car parks to individual plots shall be designed to provide an element of natural surveillance allowing views from the road. Where practical or viable pedestrian, cycle and car access to individual plots from the highway network shall be designed to provide separation from goods vehicles and rail routes.

C2.3 The height of perimeter fencing shall be a maximum of 3m above ground level and shall typically be:

- BS1722-12 Steel Palisade Fencing; and
- BS1722- 14 Open Mesh Steel Panel Fencing Category 1 (General Purpose) and Category 2 (Security) Fencing.

C2.4 Posts and struts for all fences shall be manufactured from Black RAL9005 powder coated galvanised steel and secured with concrete foundations. All fixings and straining devices shall be zinc coated.

C2.5 All Steel Palisade fencing shall have pale tops shaped in accordance with BS1722-12. Fencing shall not have cranked arms, barbed tape concertina or barbed wire entanglement topping.

C2.6 Fencing shall closely reflect the ranges below:



C2.7 Other boundary demarcation requirements shall be determined in response to the individual needs of each plot. All boundary demarcation barriers throughout the development shall be constructed in accordance with BS guidance.

C2.8 Typical systems to be used across the development shall include:

- Wooden knee rail fencing;
- Car park barrier controls;
- Galvanised steel pedestrian barriers;
- Automated sliding gate systems;
- Timber demarcation bollards;
- Timber post and wire fencing;
- Timber post and rail fencing;
- Timber post and featherboard fencing (i.e. acoustic fencing).

C2.9 All timber elements shall be FSC certified. Finishes to metal elements shall be manufactured in Black RAL 9005 powder coated galvanised steel unless for hazard demarcation or similar.



C3 Feature Elements

C3.1 Lighting for landscaped areas for aesthetic effect may be provided. Examples of suitable products are shown in Table 6.

C3.2 Feature lighting (see Table 6) shall take account of the relevant lighting Environmental Zone classification of the plots location (see Figure 6) and be limited to the main entrance areas of plots and buildings.

C3.3 Colour and finish of lighting equipment shall be considered in the context of the environmental surroundings. The use of highly reflective finishes shall be avoided where these could cause a traffic hazard.

Table 6: Lighting Equipment

Product Image	Equipment Details	Typical Application
	<p>Thorlux Passway.</p> <p>Extruded aluminium body and die cast head, 500mm and 1.1m options, LED light source in 11 and 21w variations. Options for integrated emergency and controls.</p> <p>Part Code: PW19912LFCB830 or equivalent.</p>	Staff exterior seating areas and informal footpaths.
	<p>WEFF EFC.</p> <p>Stainless steel section, die cast housing balisage style recessed inground luminaire. LED light source in colour 3000 at 6W and 12W.</p> <p>Part Code: 185-2526 or equivalent.</p>	Wayfinding and guidance.
	<p>Performance IN Lighting Tyle+</p> <p>Die cast aluminium housing, multiple optical outputs with LED source in colour 3000k 7W through to 35W.</p> <p>Part code: 3107287 or equivalent.</p>	Highlighting and up lighting of trees and feature lighting.
	<p>Ledflex Ultimo Neon 16</p> <p>Silicone flexible led system with extruded aluminium housings available in colour 2200 – 4700k. Wattage varies according to length.</p> <p>Part code: 012-1362-SL or equivalent.</p>	Accent and colour bead lighting of building facades.

C4 Soft Landscaping

C4.1 The on-plot soft landscaping scheme, except for the western and southern boundaries of the area shown on Figure 8, shall comprise deciduous and evergreen tree planting, native woodland/understorey planting, hedges, ornamental planting and seeding. The size of nursery tree stock shall range from transplants to semi-mature size and include a range of native and ornamental species suited to the site conditions and selected to optimise wildlife benefit and potential for habitat creation.

C4.2 A range of tree species shall be used that have a variety of canopy forms, leaf textures, seasonal colour and growth habits.

C4.3 The planting schemes shall take into consideration the required visibility for drivers, cyclists and pedestrians.

C4.4 The on-plot soft landscaping scheme for the western and southern boundaries of the area as shown on Figure 8 shall comprise a mosaic of short turf, bare ground and flowery swards. This is known as the 'mosaic landscaping area.'

C4.5 Within the mosaic landscaping area, the mosaic shall be created on very nutrient poor subsoils and will include a variety of substrate sizes, with bare ground comprising 20-50% of the habitat mosaic. The bare ground element will be topographically varied.

C4.6 Within the mosaic landscaping area a variety of species shall be planted within the short turf sward to include:

- Common bird's-foot trefoil (*Lotus corniculatus*);
- Hawkbits (*Leontodon* spp.);
- Other trefoils (Fabaceae including narrowed-leaved bird's foot trefoil (*Lotus tenuis*));
- Other vetches (*Vicia* spp.);
- Red clover (*Trifolium pratense*); and
- Yarrow (*Achillea millefolium*).

C4.7 Within the mosaic landscaping area to complement the bare ground and early succession community, a variety of tall flowery swards shall be planted to include the following species and/or groups:

- Common knapweed (*Centaurea nigra*);
- Bush vetch (*Vicia cracca*);
- Red bartsia (*Odontites vernus*);
- Wild carrot (*Daucus carota*);
- Ox-eye daisy (*Leucanthemum vulgare*); and
- Other trefoils (Fabaceae).

C4.8 On each individual plot, a minimum perimeter landscape width of 10m shall be provided adjacent to the infrastructure corridors (see Figures 9A and 92B) unless the plot boundary is:

- directly adjacent to a swale on same side of the infrastructure corridor as the plot, where a minimum perimeter landscape width of 7.5m shall be provided (see Figures 9C and 9D); or
- along the southern boundary of the area shown on Figure 8 where the minimum landscape width of 8m shall be provided; or
- adjacent to an infrastructure corridor with a secondary single access road (as shown on Figure 17) where a minimum landscape width of 5m shall be provided (see Figure 10A and 10B); or
- adjacent to another plot boundary, and provided buildings maintain a minimum separation distance of at least 8m to the respective plot boundaries, the plots shall be separated by shared 2.4m high palisade or paladin security fence with a 1m gravel margin (see Figure 11A and 11B). Surfacing between the fence and the building shall comprise either gravel, concrete, block paving, tarmac or species rich grass sward; or
- adjacent to car parks, except where car parks are adjacent to the western and southern boundaries of the area shown on Figure 8, where landscaping shall include native hedge, native understorey trees and a minimum 3.0m wide zone

of ornamental planting (see Figures 9A, 9D and 10A). Where screening service yards, except where service yards are adjacent to the western and southern boundaries of the area shown on Figure 8, landscaping shall include native hedgerow and native woodland planting (see Figures 9B, 9C and 10B); or

- adjacent to the Gate 3 access road where a minimum landscape width of 5m shall be provided along the eastern plot boundary (see Figure 12);
- adjacent to the BESS site where a minimum landscape width of 3m shall be provided along the eastern plot boundary (see Figure 13).

C4.9 Security fencing along infrastructure corridors shall be aligned towards the plot side of the landscape strip.

Figure 8: Mosaic Landscaping Area

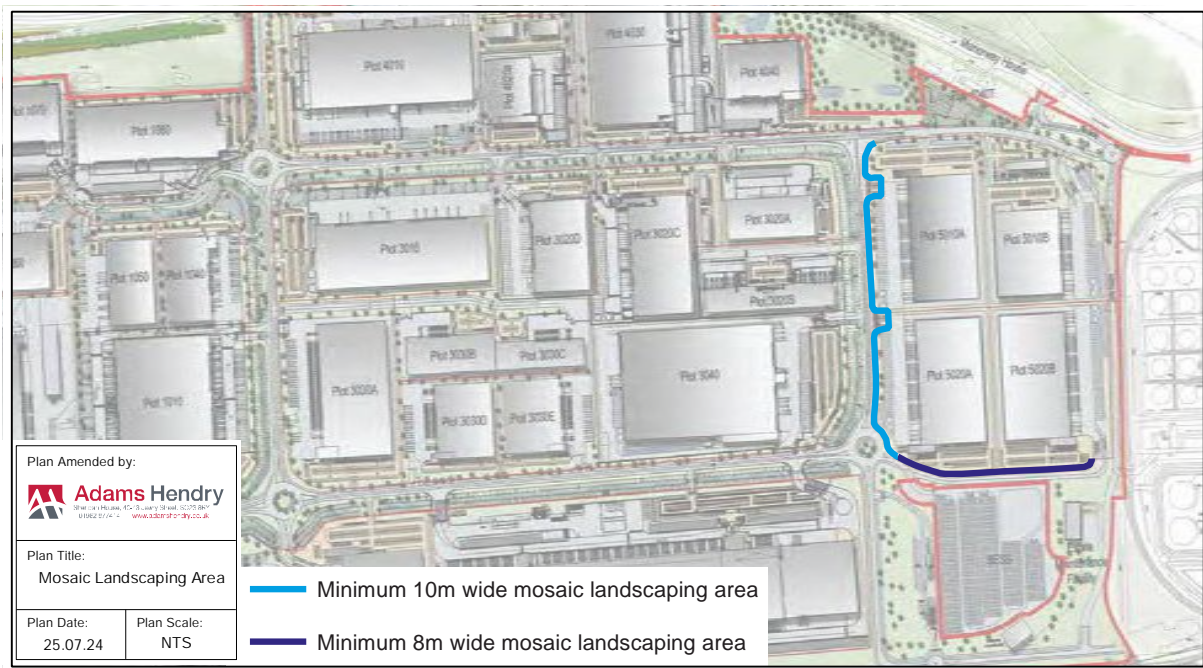


Figure 9A: Perimeter landscaping between plot car parking and infrastructure corridors (10m width)

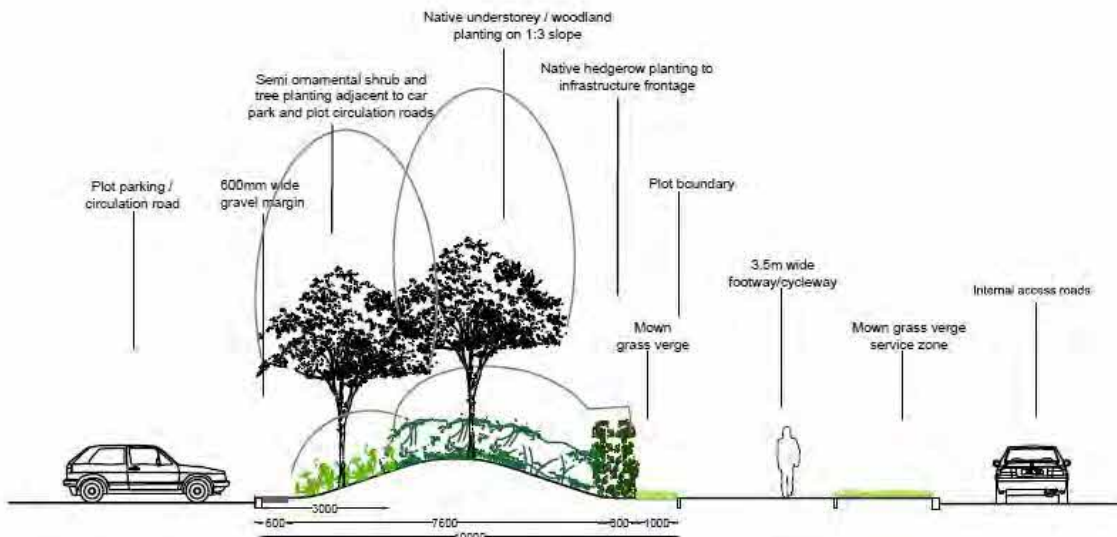


Figure 9B: Perimeter landscaping between plot HGV yard area and infrastructure corridors (10m width)

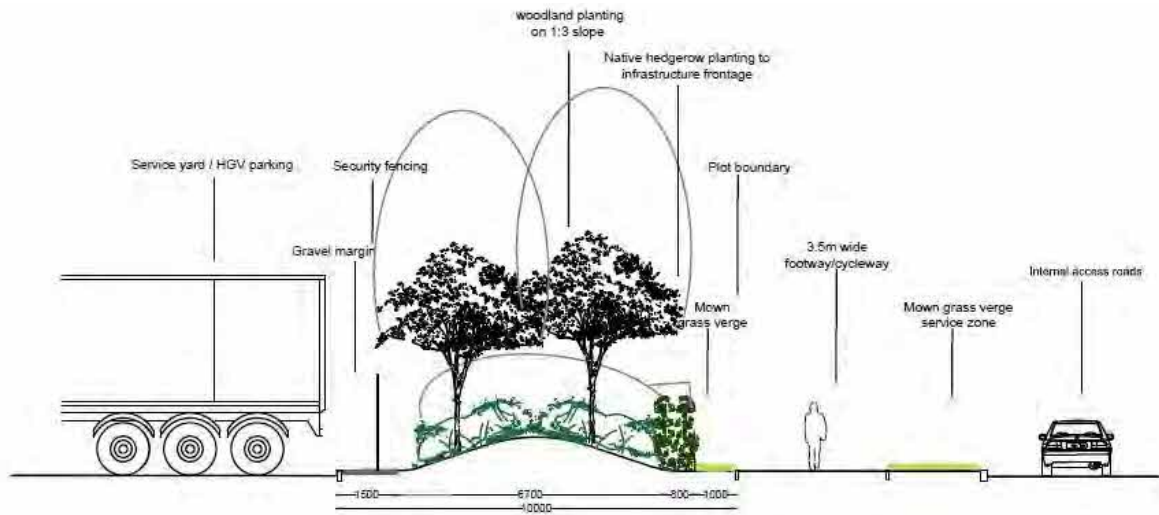


Figure 9C Perimeter landscaping adjacent to a swale between service yards and infrastructure corridors (7.5m)

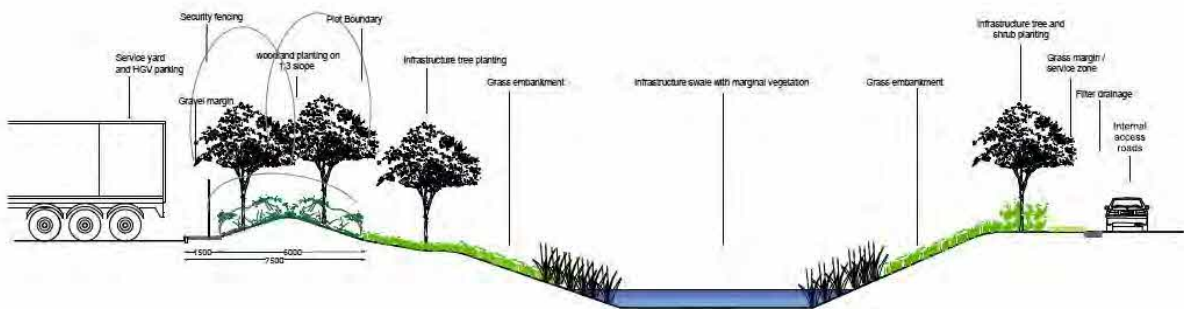


Figure 9D: Perimeter landscaping adjacent to a swale between plot parking/circulation road and infrastructure corridors (7.5m)

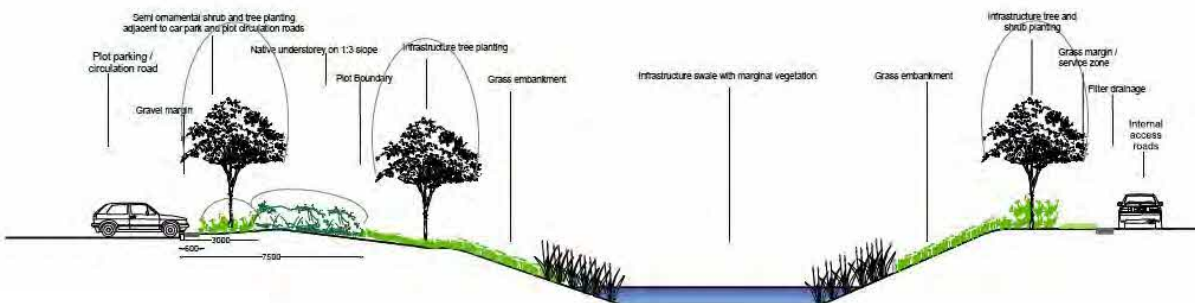


Figure 10A: Landscaping where plot parking/plot circulation road adjacent to an infrastructure corridor with a secondary single access road (5m width)

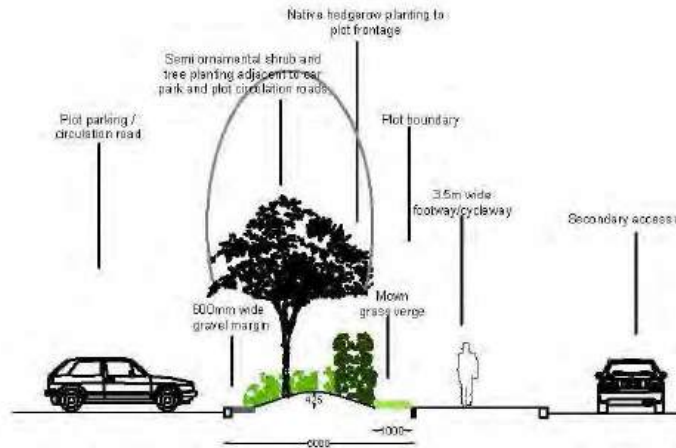


Figure 10B: Landscaping where a service yard/HGV parking is adjacent to an infrastructure corridor with a secondary single access road (5m width)

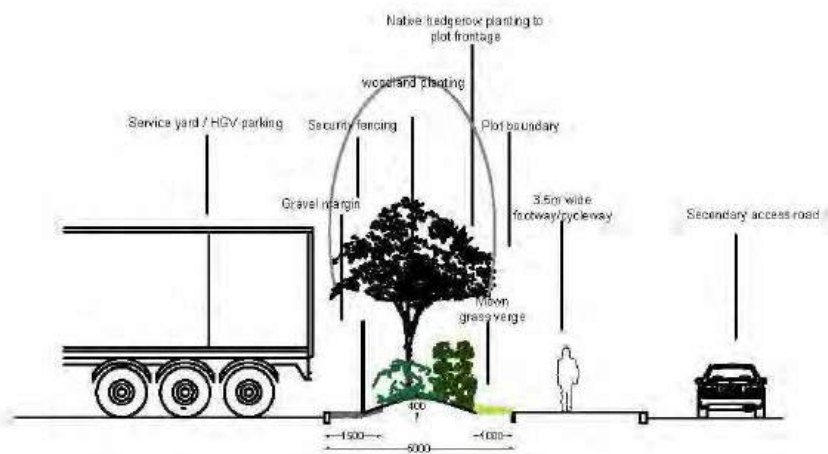
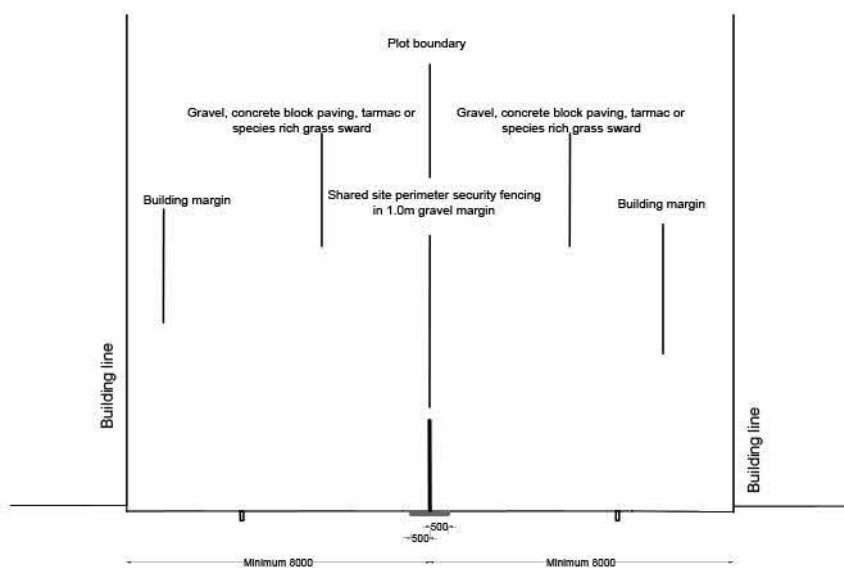


Figure 11A: Shared site perimeter security fencing



C4.12 The soft landscaping scheme for each plot shall be implemented in full accordance with the details submitted with the Prior Notification within the first full growing season after building completion or occupation whichever is the sooner. Where the landscape implementation is deferred until the first available planting season, the topsoiling works shall be maintained to eradicate weed establishment. New landscaping shall be maintained and remedial action taken as necessary for five years after planting. Maintenance thereafter shall continue in accordance with the Landscape Management Plan (Appendix 2). Cutting of the mosaic of short turf, bare ground and flowery swards in the areas shown on Figure 8 shall be varied across the site and different parts of the mosaic shall be cut annually.

C4.13 The soft landscaping scheme for plots, except for the western and southern boundaries of the area shown on Figure 8 shall comply with the detailed soft landscaping specification set out at Appendix 1.

C4.14 Plant species in general will include (but will not be restricted to) those listed within Appendix 1 except for the western and southern boundaries of the area as shown on Figure 8. Paragraph C4.6 and C4.7 details the plant species that shall be planted along the western and southern boundaries of this area.

C5 Landscape Management Plan

C5.1 A coherent, strategic and integrated approach to the management and maintenance of the soft landscape components associated with the development, shall be adopted in accordance with the Landscape Management Plan set out at Appendix 2 to ensure the successful establishment of vegetation and overall integration within the surrounding landscape.

C6 External Finishes

C6.1 External finishes shall generally be a selection of concrete, tarmacadam or block paviors / paving slabs with road marking and parking demarcated in white/ yellow thermoplastic paint or via distinctively different coloured blocks. Areas over sewage treatment systems shall be dressed with 75mm depth of gravel over geotextile membrane with timber edgings. Areas of soft landscaping within the development plots shall be designed with kerb protection to prevent damage caused by vehicles, with a gravel offset of 600mm adjacent to car parks (as shown on figures 9A, 9D and 10A), and 1500mm adjacent to service years/HVG parking areas (as shown on figures 9B, 9C and 10B) to ensure no overrun of landscaping.

C7 Earth Shaping and Planting Regime

C7.1 Individual plots shall include earth shaping elements particularly at their perimeter in order to accommodate drainage wetland areas if required as part of the drainage system and sculptural landform and mounding to enhance enclosure and provide additional interest. To enable safe access for planting / maintenance, slopes shall not exceed a gradient of 1:2 where planted with ornamental shrub species and 1:3 in all other locations.

C7.2 On plot water bodies shall generally be located away from key pedestrian routes unless edge protection is provided in accordance with Paragraph C7.7.

C7.3 The landscape composition of the plot water bodies shall include loose rock base with a combination of planting treatments including blocks of trees, shrubs, aquatic planting and managed flowering grass sward to the upper slopes.

C7.4 Species selection for marginal plants shall be robust and able to cope with changes in water level. Over time there shall be a subtle adaptation in the planting scheme in response to fluctuations in water level and management techniques.

C7.5 Where stepped access is provided to water bodies, slopes shall not exceed a maximum gradient of 1:3 to allow for emergency egress from the water. Elsewhere, water bodies shall be designed to accommodate areas where the maximum gradient does not exceed a slope of 1:5.

C7.6 The soft landscaping scheme for plots shall comply with the detailed soft landscaping specification set out at Appendix 1.

Safety

C7.7 Landscaping shall be utilised as a safety barrier to discourage public access to the ponds. Timber knee rails shall be installed as a guide to pedestrians where planting is not otherwise present.

D External Areas

D1 External Storage

D1.1. External storage shall be provided in service yards to the rear of the building and shall not front onto the primary or secondary infrastructure corridor where possible. Where plots do not benefit from a rear service yard, or if it is not possible to locate the external storage to the rear of the building, external storage fronting the primary infrastructure corridor shall be situated behind a 10m wide landscaped zone and, where fronting a secondary infrastructure corridor, behind a 5m wide landscape zone.

D1.2 Other than in the 'External Storage Exception Zones' shown on Figure 14, external storage shall have a maximum plot coverage of 2% or 2,000 sq.m whichever is the lesser and shall not exceed 6m in height and shall be within fenced areas not exceeding 3m in height.

D1.3. External storage within the 'Southern External Storage Exception Zone' shall have a maximum plot coverage of 20% or 15,500 sq.m whichever is the lesser and shall not exceed 6m in height and shall be within fenced areas not exceeding 3m in height.

D1.4 External storage within the 'Northern External Storage Exception Zone' shall have a maximum plot coverage of 25% or 7,500 sq.m whichever is the lesser and shall not exceed 3m in height and shall be within fenced areas not exceeding 3m in height.

D2 Ancillary Infrastructure

D2.1 Ancillary infrastructure including permanent plant and equipment shall be appropriately sited and limited in noise output in accordance with Paragraph A7.4. Such plant and equipment may include (but need not be limited to) external:

- chiller plants;
- sprinkler tanks and pumphouses;
- pneumatics;
- aerosol stores;

- compressor housing;
- generators;
- generator switchgear enclosures;
- electricity sub stations and ancillary electrical system stations;
- refuse areas; and
- air conditioning units.

D2.2 Electricity sub stations and ancillary electrical system stations may also be located on the plot boundary provided they are appropriately landscaped ensuring access and ventilation requirements can be met at all times.

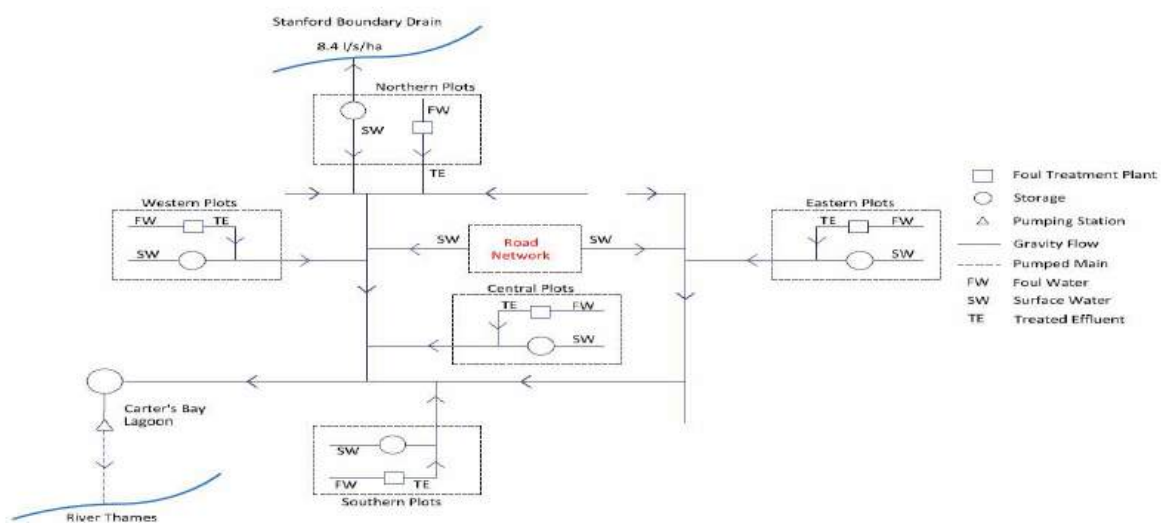
D2.3 The height of ancillary infrastructure shall not exceed the eaves of the associated building.

E On-Plot Drainage Standards

E0 Overview

E0.1 An overview of the drainage strategy is depicted in the schematic shown in Figure 15.

Figure 15: Foul and surface water drainage schematic



E1 Foul Water Drainage and Treatment

E1.1 Foul water shall be treated on-plot and discharged to the Park swale system or on-plot to a soakaway. All treatment plant installations will require an Environmental Permit under the prevailing Environmental Permitting Regulations.

E1.2 A modular submerged aerated filter (SAF) package treatment plant shall be procured and installed in each plot unless other treatment technologies prove to be more effective for the plot.

E1.3 Smaller plots may share a treatment plant. Operation and maintenance shall be in accordance with supplier's instructions and the British Water Maintenance and Service Code of Practice.

E1.4 The size of the on-plot treatment plant will vary depending on the hydraulic and biological load. For preliminary design purposes it can be assumed that an area of approximately 20m x 10m will be required for the plant and associated control panel.

E1.5 The plants shall be sized based on the maximum number of people anticipated to be working within the plot. The flows and loads shall be calculated according to the methodology laid out in the latest edition of British Water's 'Code of Practice – Flows & Loads – Sizing Criteria, Treatment Capacity for Small Wastewater Treatment Systems. Where a canteen is to be provided, the appropriate loads shall be used in the design. A grease treatment or removal (trap or bacterial dosing system) shall be provided to prevent grease reaching the plants.

E1.6 The plants shall include primary settlement, biological treatment and humus tanks, and ancillary equipment such as blowers and pipework as required for the operation of the plants. Duty/standby blowers shall be provided.

E1.7 The treatment plants shall be provided with an alarm system linked to the on-plot control centre. An alarm will be generated if the air pressure in the air supply is low, the blowers have failed or the power supply to the plant has failed. It will also indicate pump or power failure and high water level in the sump.

E1.8 If a reedbed is installed as part of the treatment process, it shall be designed and constructed in accordance with Building Regulations and planted with phragmites australis or similar.

E1.9 Occupiers will be the Environmental Permit holder and shall be responsible for the design, construction and maintenance of the treatment plant. London Gateway Services Limited (LGSL) will act as the management company to manage the Park and will have the right to monitor plant performance at any time and will have emergency access rights to undertake remedial action should it be necessary. It shall manage the swales, including routine water quality monitoring and shall respond to environmental incidents.

E1.10 Monitoring shall be undertaken on a quarterly basis or other time period as agreed with the Environmental Advisory Group (EAG). The monitoring results shall be made available to the EAG on request.

E1.11 The following measures shall be complied with during the design and installation of the foul drainage treatment and pumping installations:

- i. Equipment control panels shall be located in readily accessible locations with very low flood risk potential.
- ii. Alarm systems shall be provided to ensure rapid response to any potential major pollution risk to the primary surface water drainage system.
- iii. Vehicular access shall be provided to meet the operation and maintenance requirements of the selected treatment and pumping facilities.
- iv. Wet well venting shall be implemented in accordance with the Dangerous Substances and Explosive Atmosphere Regulations (DSEAR). These regulations will identify potentially hazardous zones that will in turn impact on the location of pumping stations and vent columns in proximity to buildings.
- v. A sampling chamber, the design of which shall be agreed with the Environment Agency, shall be provided downstream of each treatment plant and any tertiary treatment that is provided to allow sampling and flow measurement of the final effluent.
- vi. The risk of pollution from mechanical/electrical/process failure shall be evaluated to inform the choice of installation design solutions.

E1.12 Analysis has shown that where dilution of treated effluent with base flows in the swale system to a ratio of 8:1 can be achieved, the treated effluent quality discharged into the swales should be at least SS 30 mg/l; BOD 20 mg/l and NH₃-N 20mg/l.

E1.13 The EA will set effluent quality conditions as part of the Environmental Permit for each installation. The effluent quality required for each treatment plant will be decided on a case by case basis and the level of treatment necessary determined accordingly.

E1.14 A sampling chamber agreed with the Environment Agency, shall be installed downstream of the treatment process to allow sampling and testing of the final effluent prior to discharge to the watercourse. The sampling point shall be identified by signage.

E1.15 The treated effluent may be drained to an on-plot lagoon containing reeds, which could form part of the treatment process. The final effluent compliance monitoring point shall be located after all the treatment processes. Some treated effluent may soak away through the base of the lagoon. This may require a permit from the Environment Agency under the Groundwater Regulations 2010. Based on the results of a percolation test, the unlined on-plot lagoon could have an appropriate area to allow some of the effluent from the treatment plant to drain away into the ground. However, this percolation should not be relied upon as part of the means of effluent disposal.

E1.16 Where possible, flow to the lagoon shall be by gravity. Wherever pumping is required a pumping arrangement with duty/standby submersible pumps shall be installed.

E1.17 The foul water drainage networks for the plots shall be designed in line with Building Regulations Approved Document H, BS EN 752, Civil Engineering Specification for the Water Industry (CESWI) 7th Edition and Sewers for Adoption 7th Edition (or latest equivalent guidance) as applicable to pass flows based on the proposed occupancy of the site and the likely water demand.

E1.18 Pollution Prevention Guidelines “Treatment and Disposal of Foul Sewage where no Foul Sewer is Available” (PPG4), or the latest equivalent guidance, shall be used as a guide for the treatment and disposal of sewage. Whilst the PPG previously maintained by the EA has been withdrawn, it remains available on the Government’s national archives and is still considered a relevant source of good practice guidance.

E2 Surface Water Drainage

E2.1 The surface water drainage for the plots shall be designed in line with Building Regulations Approved Document H, BS EN752, Design and Construction Guidance for foul and surface water sewers offered for adoption under the Code for adoption agreements for water and sewerage companies operating wholly or mainly in England (Version 2.1, May 2021), C635: Designing for exceedance in urban drainage, (or latest equivalent guidance) and best practice guidance to pass the 1 in 2 year flow without surcharge in the system. Where one document is updated in advance of the others that updated document shall prevail where there is any conflict with the other documents.

E2.2 Sustainable methods of surface water collection, conveyance, disposal and attenuation shall be preferred over traditional methods and shall be implemented on each plot wherever practicable to CIRIA 753: The SuDS Manual and CIRIA 768: Guidance on the construction of SuDS (or latest equivalent guidance) to withstand flooding up to the 1 in 30 year return period.

E2.3 Flooding for flows up to 1 in 100 year return period + 25% allowance for climate change (or latest equivalent climate change guidance) may be contained within low-risk areas such as car parks and landscaped areas within the plot boundaries of both Southern and Northern Zones as shown on Figure 16 and may be pumped or overflow to the Logistic Park swale provided that the design avoids flooding of internal property in this event.

E2.4 Surface water runoff from the plots in the Southern Zone shall be discharged to the Park swale either by gravity at an unlimited rate or pumped at a maximum rate of 90 litres per second per hectare.

E2.5 Surface water runoff from the Northern Zone plots (as shown on Figure 16) shall be pumped into on-plot balancing storage facilities which will then outfall at controlled discharge rate into the adjacent Stanford Boundary Drain (SBD). If the maximum discharge rate is reached then it will also discharge into the Park swale either by gravity at an unlimited rate or pumped at a maximum rate of 90 litres per second per hectare.

E2.6 The allowable discharge to SBD shall be limited to the equivalent Greenfield runoff rate as calculated in accordance the Institute of Hydrology Report No. 124, i.e. QBAR = 2.6l/s/ha; 1 in 30 year return period = 6.0l/s/ha; 1 in 100 year return period = 8.4l/s/ha.

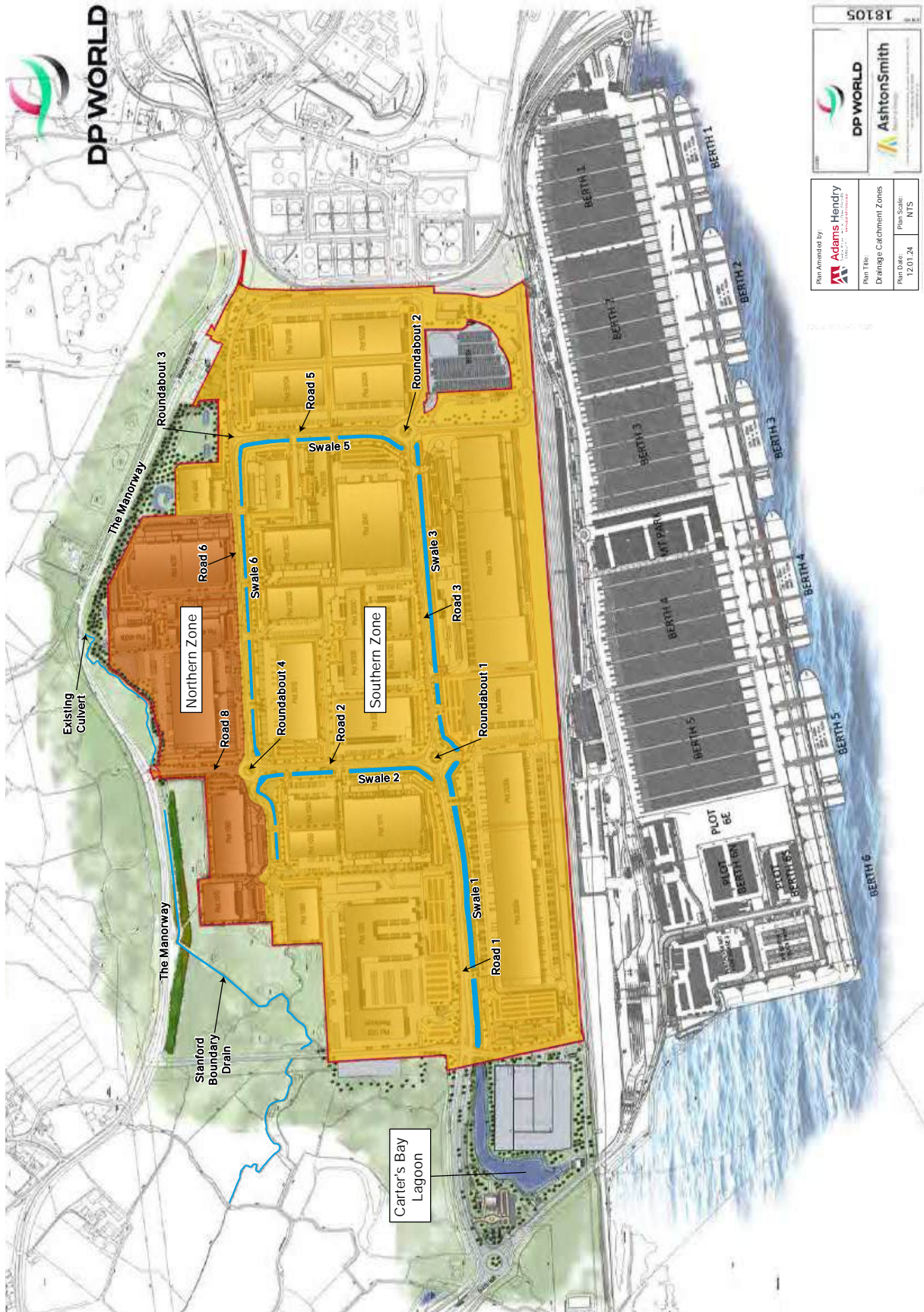
E2.7 Occupiers shall undertake their own risk assessment of their plot, given the nature of their business, and provide back-up pumps and power if necessary.

E2.8 Plans of the surface water drainage infrastructure shall be submitted to the Lead Local Flood Authority (LLFA) for information no later than the submission date of a prior notification request.

Table 7: Summary of Design Parameters

Item	Parameter	Nominal
Allowable Discharge	To Northern Plots to Stanford Boundary Drain	8.4 l/s/ha
	From Southern Plots to the Swale – by gravity	Unlimited
	From Southern Plots to the Swale – by pumping	90 l/s/ha
Design Standard	On-Plot drainage system	1 in 30 year without flooding 1 in 100 year + 25% Climate Change with flooding routed to safe areas such as car parks or pumped or overflow to the swale (from both Southern and Northern Plots).
	Final effluent consent	To be determined through environmental permit.

Figure 16: Drainage catchment zones



E3 Pollution Control

E3.1 A Pollution Prevention Plan shall be prepared for each plot by the occupier. It shall have regard to the processes and risks associated with the proposed business activities and this shall be made available for inspection at any time. Provision shall be made as part of the PPP to minimise the risk of remobilisation of, and washout of any pollutants such as sediment. Equipment to contain spillages, including oil booms but also drain blockers and dams to contain soluble pollutants, shall be made readily available.

E3.2 The swales alongside plot access roads throughout the site shall be inspected, at least on a weekly basis, for signs of pollution, such as oil on the water surface. A programme of monitoring the water quality in the swales and the treatment plant discharges thereto shall be agreed with the Environment Agency prior to occupation of the plots. Where pollution is evident, as with visible oil, appropriate clean-up measures, such as absorbent booms shall be used to remove it. Oil booms shall be removed on completion of the clean-up to avoid re-release of oil or potential blockages.

E3.3 The drainage system from each plot shall require oil separators, grease traps and other containment at source, as necessary for the nature of each business.

E3.4 Any oil, fuel or chemical storage tanks, buildings, ancillary handling facilities, filling, drawing and overflow pipes shall be enclosed within an impervious bunded area of at least 110% of the tank capacity and the bunded area shall be fully constructed in accordance with current Oil Storage Regulations before the relevant part of the development to which it first relates is first occupied or brought into use.

E3.5 Parking areas in excess of 50 spaces, and areas accessed by commercial vehicles or HGV's, shall be drained to the drainage network via an on-site oil separator designed in accordance with Pollution Prevention Guidelines 'Use and Design of Oil Separators' (PPG3). Silt shall be managed at source. Whilst the PPG previously maintained by the EA has been withdrawn, it remains available on the Government's national archives and is still considered a relevant source of good practice guidance.

E3.6 In the event of a major pollution incident occurring on-plot, the system shall be isolated or discharge to the swale shall be shut down until the pollution incident has been cleaned up.

E3.7 Plot drainage shall be separated from the main surface water drainage system at the following locations to allow for the containment of pollutants:

- Loading areas where spillage of cargo may occur;
- Skip/waste storage areas;
- Areas where chemicals and oils are stored;
- Boiler/chiller areas where condensates are discharged.

E3.8 In areas where there is a high risk of spills, penstocks should be installed in the drainage, to limit the risk of pollution to the main surface water drainage system.

E3.9 Surface water runoff from waste storage areas and any other high risk areas shall be treated appropriately and discharged in accordance with relevant Building Regulations, PPG and SUDS guidance.

Part 2: Plot Design Standards for Offices, Food and Drink, Shop, Gym, Creche/Day Nursery and Outdoor Sports Facilities

Part 2: Plot Design Standards for Offices, Food and Drink, Shop, Gym, Creche/Day Nursery and Outdoor Sports Facilities

F Plot and Building Design Standards

F1 Plots

F1.1 For the purposes of this Design Code, amenity uses include shops, gyms, food and drink outlets, a creche/day nursery and outdoor sports facilities. An amenity hub comprises at least three of these uses within a mixed-use building.

F1.2 Amenity uses shall be located together, ideally as part of a mixed-use building, close to the main access to the Logistics Park or within a central part of the site.

F1.3 The ground floor shall be designed with the potential to accommodate a creche/day nursery, a shop and/or a food and drink outlet and should allow maximum flexibility for fitout and future change of use.

F1.4 The principal elevation (normally containing the main public entrance to the building and including windows on the ground floor) shall front onto a primary or secondary access road or external public space to create interest and activity (an active frontage). Where a building occupies a corner plot, an active frontage shall be maintained on both frontages.

F1.5 Amenity uses will not be permitted within the Health and Safety Executive (HSE) Consultation Zone or 'Envelope of Safeguarding Distances SD3' as shown on Figure 2.

F1.6 Offices shall not be located within the HSE middle zone, outer zone or 'Envelope of Safeguarding Distances SD3' as shown on Figure 2.

F1.7 Offices may be located within the HSE Inner Zone (IZ) where:

- the number of occupants in each building is less than 100 and the building has less than 3 occupied storeys.
- the area within the IZ will be used for parking serving the plot.

F2 Building Size

F2.1 The maximum gross internal floorspace of any single retail unit within (Use Class F(2)(a) (shops) shall not exceed 280sq.m

F2.2 'Gross Internal Floorspace' is equivalent to 'Gross Internal Area' as calculated in accordance with the RICS Code of Measuring Practice (sixth edition) or any revision thereto.

F2.3 Buildings shall maintain a minimum separation distance of at least 8m to the plot boundary.

F3 Height

F3.1 Buildings shall be designed to make the most efficient use of the site with the potential to be at least three storeys high either on construction or in the future.

F3.2 Development shall not exceed the maximum height for the zone/plot in which the building is to be located as shown on the Height Zoning Plan (Figure 4).

F4 Building Materials and Roofing Principles

F4.1 A palette of different materials shall be used in order to achieve articulation and texture in the overall appearance of the area.

F4.2 The visual impact of the colours and finishes of wall and roof cladding materials shall be considered in relation to the background and the context of the building. All buildings shall maximise natural light, passive heating, cooling and ventilation. This can be achieved through using stack effect, cross ventilation, rooflights, double-skin facades, and other strategies for passive environmental regulation.

F4.3 Where glass curtain walling is proposed, vertical brise-soleil shall be incorporated on east-west building elevations and horizontal brise-soleil to south building elevations.

F4.4 Architectural features shall demarcate the main public entrance to buildings. This can include articulation of the façade using a change in volume, canopy, floor or paving finish, signage, and contrasting changes in material treatment.

F4.5 Any extension or alteration to a building shall have a similar external appearance to the existing building.

F4.6 Any ancillary building shall meet the same architectural standards as the main building.

F4.7 Buildings shall be constructed from the following palette of materials:

- Glass curtain walling/ storey height glazed panels.
- Aluminium/stainless steel mesh.
- Polycarbonate panels.
- Exposed concrete.
- Natural timber cladding (synthetic boarding is not acceptable).
- Brick (not buff, light or white in appearance).
- Corten Steel cladding.
- Anodised aluminium curtain walling.
- Aluminium ribbon windows.
- Brass/copper products.

F4.8 Roofs shall be constructed from the following palette of materials:

- Galvanised steel profiled sheet/corrugated galvanised steel.
- Anodised aluminium.
- Slate.
- Biodiverse/green roofing.

F5 Roofscape and Plant

F5.1 Roof mounted plant excluding roof mounted PV, flues and vents shall require screening behind a parapet wall, or integration within the building to maintain clean horizontal roofscapes.

F6 Fixed Plant

F6.1 Fixed plant such as chiller units on noise sensitive elements shall comply with the appropriate British Standard for these noise sensitive spaces, including BS8233:2014.

F6.2 Chiller units and any other ventilation ducts should be limited to less than 85 dB(A) at 1 metre.

F7 Ventilation and Extraction for Premises serving Hot Food

F7.1 Where hot food is proposed to be served, ventilation and extraction systems shall ensure that no nuisance, disturbance or loss of amenity is caused by odour or smoke/fumes, food droplets to occupants of nearby premises.

F7.2 The design of ventilation and extraction systems shall be undertaken by a suitably qualified person. Details shall be submitted for approval by the local authority Environmental Protection Officer (EPO) (in consultation with the Public Protection Department) in advance of the LDO2 prior notification process in the form of a Ventilation and Extraction Design Statement (VEDS).

F7.3 The EPO shall have no more than 20 working days to consider the VEDS unless an extension of time is agreed in writing with the applicant and the local planning authority. To enable the EPO to assess the suitability of a ventilation scheme, the following information shall be provided:

- Information on premises including the number of meals to be served per day; the method(s) of preparation and cooking; and proposed hours of operation of the business and any ventilation plant.
- A scaled plan showing the internal arrangement of the premises and the dimensions/location of the ventilation system. The plan must contain external elevations of the buildings showing the dimensions, route; and exhaust termination characteristics (i.e. appearance) of the ductwork in relation to the building. The location of all filters and the fan must be clearly marked. Where the location of a filter is shown the type must be clearly identified and cross-referenced to the detailed product specification.
- Where an odour counteractant or neutralising system is proposed the details and type should be identified.
 - Cooker hood characteristics – dimensions, dwell time of the gases in the carbon filtration zone, efflux velocity.
 - System Operation - extract rate, dwell time of the gases in the carbon filtration zone, efflux velocity.
 - Flue Design: the height and velocity of the final discharge stack.
 - Maintenance schedule for all systems.
- Where the hot food outlet is part of a mixed-use building, details of other uses within that building.

F7.4 The kitchen extract system shall be installed in full accordance with the VEDS and permanently maintained thereafter. No changes to the installed system shall be made without prior approval.

F7.5 The food outlet shall register with the Thurrock Council Food Team.

F8 External Building and Site Signage

F8.1 All signage and advertisements on the site shall be subject to the Town and Country Planning (Control of Advertisements) (England) Regulations 2007 as amended.

F9 Sustainable Design Standards

F9.1 The standards set out in Part 1 Section A10 will apply.

F10 Creche/ Day Nursery (Use Class E(f))

F10.1 The design of buildings for use as a creche and/or day nursery shall accord with the 'Early Years Foundation Stage Statutory Framework for group and school-based providers' published by the Department for Education in December 2023 or as subsequently amended.

F10.2 Outdoor space shall be designed to be used all year round. A covered canopy or veranda shall provide a transitional space linking indoor playrooms and outdoor spaces which shall be deep enough to provide shade and shelter from the sun, wind and rain without reducing the level of light in adjacent rooms.

F10.3 The outdoor area adjacent to the building shall have a hardscape feel with the inclusion of a material such as wetpour surfacing to provide a safe and durable solution for safe play. The rest of the amenity space shall be of a softscape nature which shall be limited to the edge of the boundary treatment. The planting shall follow the current palette see Appendix 1 and follow an evergreen theme with seasonal interest.

F10.4 Any back-filled top-soil shall be play-safe, including play-safe bark or sand. Planting shall not be toxic.

F10.5 If outdoor spaces are not bound by the building, they shall be securely fenced. The boundary fencing shall be a minimum of 2.4m high and shall be solid with no visibility into the outdoor play area from surrounding area. The internal panel of the boundary treatment to be a bespoke designed in with opportunities for playful and colourful features.

F10.6 An outdoor storage area shall be provided and this shall be laid on a hard-concrete surface and be located a corner of the outdoor play space away from children. The storage shall be large enough to hold equipment for the creche and be accessible to the staff.

F10.7 Where wraparound care is to be provided for primary school aged children before and after school (or during school holidays), the levels of internal and external play space shall be agreed with the School Effectiveness Team Manager at Thurrock Council. The School Effectiveness Team Manager shall have no more than 20 working days to consider such a request unless an extension of time is agreed in writing with the applicant and the local planning authority.

F10.8 Paths to the creche/day nursery shall be a minimum of 2m wide, clearly defined, signed and well-lit, with a maximum gradient of 1:20. Cross-falls shall be a maximum of 1:50.

F10.9 Car parking arrangements shall not endanger the safety of the children, visitors, or staff. Car parking shall be set well away from external play space. Where this is not possible, there shall be adequate screening and planting to reduce the effect of vehicle emissions, and to ensure children's safety.

F10.10 There shall be a safe point of access close to the entrance of a day nursery or crèche with enough space to drop off children safely (including those in wheelchairs),

F10.11 Where wrap around care is to be provided as part of a day nursery/creche setting a minibus bay (8m by 4m) shall be provided to enable children to be dropped off and picked up before and after school.

Pre-submission consultation requirements

F10.12 Full design details demonstrating compliance with the 'Early years foundation stage statutory framework for group and school-based providers', shall be submitted for approval by the School Effectiveness Team Manager at Thurrock Council in advance of the LDO2 prior notification process in the form of a Creche/Day Nursery Design Statement (C/DNDS).

F10.13 The School Effectiveness Team Manager shall have no more than 20 working days to consider the C/DNDS unless an extension of time is agreed in writing with the applicant and the local planning authority.

F11 Outdoor Sports Facilities (Use Class F2 (c))

F11.1 Artificial Grass Pitches (AGP) suitable for recreational sport shall be located in close proximity to the amenity uses to enable shared use of facilities. The use of rubber crumb as an infill material in the construction of the pitch should be avoided. The AGP shall be enclosed by rigid panel mesh fencing of at least 3m in height and no more than 6m in height with a double gate for maintenance and access.

F11.2 Multi-Use Games Areas (MUGA) e.g. tennis/basketball courts shall be constructed with a porous asphalt/macadam surface with a colour coated non-slip paint finish. Rigid panel mesh fencing of at least 3m in height and no more than 5m in height shall be installed around the perimeter of the court with a double gate for maintenance and access.

F11.3 Any external storage facility required in connection with the use of the outdoor sports facilities shall not exceed 5m length, 2.5m depth and 2.5m height and shall be constructed using composite timber cladding.

F11.4 Any floodlights required for the outdoor sports facilities shall not exceed 10m in height and shall be designed to minimise light spill. Amenity / security lighting should be installed along access routes to help alleviate any severe contrast of lighting conditions when a user comes away from a floodlit facility.

F11.5 The AGP/MUGA should be no closer to trees than a distance equivalent to at least the potential height of the tree and its potential canopy width. Where this is not possible, construction can take place above the tree roots by using 'cellular web' sheeting, which is placed onto the soil, pinned in place and filled with stone ('non-dig' construction).

F11.6 The AWP/MUGA shall be designed to ensure that all surface water is removed from the pitch at a rate which will avoid surface flooding from the facility and surrounding area.

Pre-submission consultation requirements

F11.7 A detailed drainage strategy shall be submitted to the Lead Local Flood Authority (LLFA) for approval prior to the Prior Notification process. Confirmation that the drainage strategy has been approved shall accompany any Prior Notification submission. The LLFA shall have no more than 20 working days to consider the drainage strategy unless an extension of time is agreed in writing with the applicant and the local planning authority.

F11.8 The AWP/MUGA shall be constructed and maintained in accordance with the approved drainage strategy.

G Roads, Parking and Access

G1 Plot Access

G1.1 The design of access roads into individual development plots shall comply with the standards for access visibility set out in the Design Manual for Roads and Bridges (DMRB).

G1.2 Where practical or viable, pedestrian, cycle and car access to individual units from the internal site highway network shall be designed to provide separation from goods vehicles for safety and security purposes and to prevent queuing of vehicles on the estate roads.

G1.3 To meet health, safety and security requirements on development plots, footpaths and cycleways shall be terminated at the plot threshold and internal plot layouts shall be designed to accommodate individual occupier requirements whilst maintaining safe routes to the buildings for pedestrians.

G1.4 Fences or gates shall not obscure sight lines of any junction on the estate roads or any vehicular access to the highway.

G1.5 Where practical or viable, plot access onto the road to the amenity hub will be at least 90m from the access to any adjoining plot when on the same side of the road.

G2 Plot / Amenity Hub Based Vehicle Servicing

G2.1 Provision shall be made for the loading, unloading and turning of commercial vehicles to meet normal servicing requirements. Vehicle tracking details of the largest vehicle likely to be required shall be submitted with any prior notification submission. Vehicular access to external areas shall accommodate maintenance vehicles and fire and rescue service vehicles in accordance with building control regulations.

G2.2 There shall be a clearly demarked safe pedestrian walkway between individual buildings and outdoor sport facilities. Pedestrian routes shall include tactile surfacing and shall be separate from car access, commercial delivery and servicing routes.

G2.3 Parking and vehicle circulation shall be designed to allow free flowing access to all external areas of the building required by the unit operator. Full site circulation shall be maintained in compliance with Building Regulation requirements.

G3 Parking Standards

G3.1 The amenity hub or individual unit shall be designed to achieve optimum vehicle parking requirements to prevent vehicles queuing on the highway.

G3.2 Car parking shall be provided in accordance with the maximum standards specified in Tables 8 - 15 below and shall be made available for use during the time that any part of a building is open to any persons employed within the building or to persons visiting the building. Standards for electric vehicles, cycle, blue badge holders and motorcycles are minimum standards.

G3.3 These parking standards in this document will apply until such time as they are updated by Thurrock Council in which case the updated standards would apply.

G3.4 Dedicated and conveniently located parking spaces with charging points and facilities for the charging of electric vehicles shall be provided.

G3.5 Charging points shall be activated in line with occupier demand having regard to the use of car parking spaces dedicated for electric vehicle parking which is to be surveyed and reported in the annual survey in line with the LDO2 Travel Plan.

G3.6 Where a development incorporates two or more land uses to which different parking standards are applicable, the standard appropriate to each use shall be applied in proportion to the extent of the respective use.

G3.7 The width of standard parking bays with end bays adjacent to solid structures shall be increased by 1m to allow for manoeuvrability on entry/exit to and from the vehicle. Clear directional marking signs shall be set out using suitable signs and surface arrows.

Table 8 - Parking Standards for Offices - Use class E(g)(i)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 30 sq.m	50 spaces or fewer = 1 space with charging point Over 50 spaces = 2% of total spaces with charging points Passive provision for all remaining spaces	1 space per 100 sq.m for staff plus 1 space per 200 sq.m for visitors. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 2 spaces or 5% of total capacity (whichever is greater) Over 200 car spaces = 6 spaces plus 2% of total capacity	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 9 - Parking Standards for sale of food and drink for consumption (mostly) on the premises - Use Class E(b)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 5 sq.m	550 spaces or fewer = 1 space with charging point Over 50 spaces - 2% of total spaces with charging points Passive provision for all remaining spaces regardless of total number	1 space per 100sq.m for staff plus 1 space per 200sq.m for customers Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 3 spaces or 6% of total (whichever is greater) Over 200 vehicle spaces = 4 spaces plus 4% of total	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 10 - Parking Standards for indoor sport, recreation or fitness Use Class E(d)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 10 sq.m	50 spaces or fewer = 1 space with charging point Over 50 spaces = additional 2% of total spaces with charging point Passive provision for all remaining spaces	10 spaces plus 1 space per 10 car spaces Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 3 spaces of 6% of total (whichever is greater) Over 200 vehicle spaces = 4 spaces plus 4% of total capacity	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 11 - Parking Standards for creche, day nursery or day centre - Use Class E(f)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per full time equivalent staff plus pick up/drop off facilities	50 spaces or fewer = 1 space with charging point Over 50 spaces = additional 2% of total spaces with charging points Passive provision for all remaining spaces	1 space per 4 staff plus 1 space per 10 child spaces Passive provision for e-bike charging for all spaces regardless of total number.	1 space or 5% of total car spaces, whichever is the greater	1 space + 1 per 20 car spaces (for first 100 car spaces); then 1 space per 30 car spaces (over 100 car spaces) Passive provision for e-motorcycle charging for all spaces regardless of total number.

Table 12 - Parking Standards for shops selling essential goods - Use Class F2(a)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
1 space per 20 sq.m for non food; or 1 space per 14 sq.m for food stores	50 spaces or fewer = 1 space with charging point Over 50 spaces = additional 2% of total spaces with charging points Passive provision for all remaining spaces	1 space per 400 sq.m for staff. 1 space per 400 sq.m for customers. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 3 spaces of 6% total capacity, whichever is greater. Over 200 vehicle spaces = 4 spaces plus 4% total capacity.	1 space with passive provision for e-motorcycle charging

Table 13 - Parking Standards for outdoor sport or recreation - Use Class F2(c)

Car	Electric car charging points	Cycle	Blue Badge	Motorcycle
20 spaces per pitch plus 1 space per 10 spectator seats.	50 spaces or fewer = 1 space with charging point Over 50 vehicle spaces = 2% of total spaces charging points Passive provision for all remaining spaces	10 spaces plus 1 space per 10 vehicle spaces. Passive provision for e-bike charging for all spaces regardless of total number.	200 vehicle spaces or less = 3 spaces or 6% of total capacity, whichever is greater. Over 200 vehicle spaces = 4 spaces plus 4% of total capacity	1 space + 1 per 20 car spaces (for 1st 100 car spaces), then 1 space per 30 car spaces. Passive provision for e-motorcycle charging for all spaces regardless of total number.

G3.8 The parking standards for outdoor sport or recreation (F2 (c)) shall apply unless otherwise agreed with the Highway Authority in writing in advance of the LDO2 prior notification process.

G3.9 In addition to providing parking for disabled drivers as described in the code of practice BS8300:2009 (including amendments), a parking priority scheme for car sharers shall be implemented in line with the requirements of the LDO2 Travel Plan. Space for people with disabilities shall be located adjacent to entrances and shall be marked with lines and the International Symbol for Access.

Table 14: Car Parking Dimensions

Type	Dimensions
Standard	2.5m x 5.5m
Blue Badge	3.9m x 6.5m

G3.10 Lorry parking bay dimensions shall be in accordance with the standards set out in Part 1, Section B4, Table 5.

G3.11 There shall be no parking on estate roads.

G4 Cycle Parking

G4.1 The standards set out in Part 1 Section B5 will apply.

G5 Materials for Road Construction

G5.1 The standards set out in Part 1 Section B6 will apply.

G6 Standards for Footpaths and Cycleways

G6.1 The standards set out in Part 1 Section B7 will apply.

H Lighting

General Considerations

H1.1 The standards set out in Part 1 at paragraph B8.1 – B8.10 shall apply.

Lighting for Car Parks

H1.2 Lighting shall be in accordance with the principles and guidance detailed Table 5.9 in BS EN 12464-2:2014.

Performance Requirements

H1.3 The lighting designer shall assess whether the proposed use is likely to generate light or medium traffic. Where light traffic is likely, such as for a shop, the average illuminance shall be 5 lux with a uniformity of 0.25. Where medium traffic is likely such as for an office or multipurpose building the average illuminance shall be 10 lux with a uniformity of 0.25

Lighting Arrangement

H1.4 The car park area shall use the Thorlux Starbeam luminaire (or equivalent) with a lumens output and distribution to suit the development and to ensure no over-lighting) at a typical mounting height of 6-8 m with a maximum upward lighting ratio of 2.5% compliant with GN01:21.

H1.5 The typical installation geometry set out in Part 1 at paragraph B8.34 shall apply.

Lighting for Footpaths

H1.6 Lighting shall be in accordance with the principles and guidance detailed Table 5.1 in BS EN 12464-2:2014.

Performance Requirements

H1.7 For footpath to, from and around buildings or to and from the outdoor sports facilities the average illuminance shall be 5 lux with a uniformity of 0.25 however if this footpath is to be used by slow moving vehicles such as bicycles or commercial vehicles then the average illuminance shall be increased to 10 lux with a uniformity of 0.4.

Lighting Arrangement

H1.8 Where the footpath is beside a building this shall be lit with building mounted downlights with a wider sideways throw for a narrow path using typically the Thorlux Realta with an upward light ratio of not more than 2.5%. If the footpath moves away from a building, the lighting shall be achieved through either wall mounted fittings or circa 5-6m high column mounted footpath fittings as appropriate with an output, light distribution and spacing, optimised to meet the lighting class / performance requirements.

H1.9 The installation geometry set out in Part 1 at paragraph B8.34 shall apply.

Outdoor Sports Facilities

H1.10 Lighting of outdoor sports facilities shall be in accordance with the principles and guidance outlined in Sport England Design Guidance Note – Artificial Sports Lighting 2012.

Performance Requirements

H1.11 Lighting of outdoor sports facilities shall meet the highest lux / uniformity level of the sport likely to be played on the facility based upon the markings on the pitch/court and shall be

in accordance with Sport England's lighting requirements as per the table below. The maximum illuminance level is 500 lux which can be dimmed as appropriate for the sport being played.

Table 15: Recommended lighting levels of Outdoor Sports Facilities

Club and Community lighting for tennis, netball, 5-a-side, basketball, rush hockey					
		Club		Community	
		Horizontal Illuminance (Lux)	Uniformity (Emin / Eave)	Horizontal Illuminance (Lux)	Uniformity (Emin / Eave)
Netball		400	0.7	400	0.7
Tennis (recommended)	PPA	500	0.7	500	0.7
	TPA	400	0.6	400	0.6
5-a-side football		120	0.6	120	0.6
Basketball		200	0.6	75	0.5
Rush hockey		350	0.7	200	0.7

Lighting Arrangement

H1.12 The lighting for the outdoor sport facilities shall be column mounted floodlights with a maximum height of 10m. The luminaires should have an asymmetric optic and have a maximum tilt of 5 degrees if necessary, ensuring that the upward light ratio when installed does not exceed 2.5%. The arrangement of columns / luminaires should be designed in accordance with guidance from Sport England and best practice to minimise glare to players and spectators.

H1.13 Lighting of the outdoor sports facilities should be switched off when not in use. The footpaths to/from the outdoor sports facilities should be lit as per H1.6 to enable safe pedestrian movement when the outdoor sports facilities lighting is switched off.

Boundary Security Lighting

H1.14 Boundary security lighting shall be in accordance the standards set out in Part 1 at paragraph B8.38.

I Landscaping

I1 Street Furniture

I1.1 Street furniture (e.g. seating, cycle storage etc.) shall be in accordance with requirements set out at Part 3, Section O3 of this document.

I2 External Amenity Space

I2.1 External amenity space shall be located to minimise noise and pollution from adjacent plots. Amenity space shall be directly accessed from the building and be orientated where possible to maximise daylight and provide shade or covered areas where outdoor seating is proposed. Where appropriate, opportunities for public artwork shall be provided.

13 Boundary Treatment

13.1 The requirements for perimeter on-site security and other boundary demarcation as set out in Part 1, section C2 shall apply.

14 Feature Elements

14.1 Lighting for landscaped areas for aesthetic effect may be provided. The standards set out Part 1 Section C3 shall apply.

15 Soft Landscaping

15.1 The on-plot soft landscaping scheme shall comprise a linear block of tree within the perimeter landscape area frontage onto internal infrastructure roads. The trees shall have a 2m high clear stem. A range of tree species shall be used that have a variety of canopy forms, leaf and bark textures, seasonal colour and growth habits. The size of nursery tree stock shall include a range of native and ornamental species suitable to the site conditions and selected to optimise wildlife benefit and potential for habitat creation. The majority of trees shall be planted as semi-mature.

15.2 Understorey planting within the frontage perimeter landscaping area shall comprise ornamental shrubs, grasses and groundcover planting.

15.3 Ornamental shrub, herbaceous and specimen tree planting shall be included within car parking areas and at accent locations such as entrances to buildings or outdoor seating areas, except in seating areas around the outdoor sports facilities. Planting shall provide year round interest. Landscaping shall be designed with trespass, vandalism and other security issues in mind.

15.4 Planting, if required, around the outdoor sports facilities shall comprise wildflower meadow.

15.5 The planting schemes shall take into consideration the required visibility for users of internal roads and pedestrians.

15.6 On each individual plot, a minimum perimeter landscape width of 10m shall be provided adjacent to the infrastructure corridors unless the plot boundary is:

- directly adjacent to a swale on same side of the infrastructure corridor as the plot, where a minimum perimeter landscape width of 7.5m shall be provided; or
- adjacent to an infrastructure corridor with a secondary single access road (as shown on Figure 17) where a minimum landscape width of 5m shall be provided; or
- adjacent to another plot boundary, and provided buildings maintain a minimum separation distance of at least 8m to the respective plot boundaries, the plots shall be separated by shared 2.4m high palisade or paladin security fence with a 1m gravel margin (see Figure 11A and 11B). Surfacing between the fence and the building shall comprise either gravel, concrete, block paving, tarmac or species rich grass sward; or
- adjacent to car parks where landscaping shall include, native understorey trees and a minimum 3.0m wide zone of ornamental planting.

15.7 There shall be no fencing between the frontage perimeter landscaping strip and the adjacent building and/or car park.

15.8 The soft landscaping scheme for each plot shall be implemented within the first full growing season after building completion or occupation whichever is the sooner. Where the landscape implementation is deferred until the first available planting season, the topsoiling works shall be maintained to eradicate weed establishment. New landscaping shall be maintained and remedial action taken as necessary for five years after planting. Maintenance thereafter shall continue in accordance with the Landscape Management Plan (Appendix 2).

15.9 The soft landscaping scheme for plots shall comply with the detailed soft landscaping specification set out at Appendix 1.

15.10 Plant species will include (but will not necessarily be restricted to) those listed within Appendix 1

I6 Landscape Management Plan

16.1 A coherent, strategic and integrated approach to the management and maintenance of the soft landscape components associated with the development, shall be adopted in accordance with the Landscape Management Plan set out at Appendix 2 to ensure the successful establishment of vegetation and overall integration within the surrounding landscape.

I7 External Finishes

17.1 The standards set out in Part 1 Section C6 shall apply.

I8 Earth Shaping and Planting Regime

18.1 The standards set out in Part 1 Section C7 paragraphs C7.1 – C7.7 shall apply.

J Ancillary Infrastructure

J1.1 Ancillary infrastructure including permanent plant and equipment necessary to support amenities uses and offices shall be in accordance with Part 1 Section D2.

K On Plot Drainage Standards

K1.1 On plot drainage shall be in accordance the standards set out in Part 1 at Section E.

Part 3: Infrastructure Standards

Part 3: Infrastructure Standards

L Highway Design Standards

L1.0 The following highway design standards shall apply to the construction of internal site access roads, footways and cycleways. Road infrastructure connections for each phase of development shall be provided to wearing course prior to operational use of any building.

L1 Internal Access Roads

L1.1 The general layout and hierarchy of the internal access roads is shown on Figure 17.

L1.2 Remaining secondary single access roads where a HGV right hand turning lane is required to serve individual plots, and where a swale is to be provided, shall comprise a 11m wide carriageway and be constructed to the dimensional standards identified on the cross sectional drawing set out at Figure 18.

L1.3 Single 7.3m, and 11m wide carriageway roads (incorporating a HGV right hand turn lane), where no swale is required shall be constructed to the dimensional standards identified on the cross-sectional drawings set out at Figure 19 and Figure 20 respectively. The cross fall shall be a 2.5% gradient for a footway/cycleway and 5% for a service strip.

Figure 18: Single Carriageway Cross Section where a swale is required

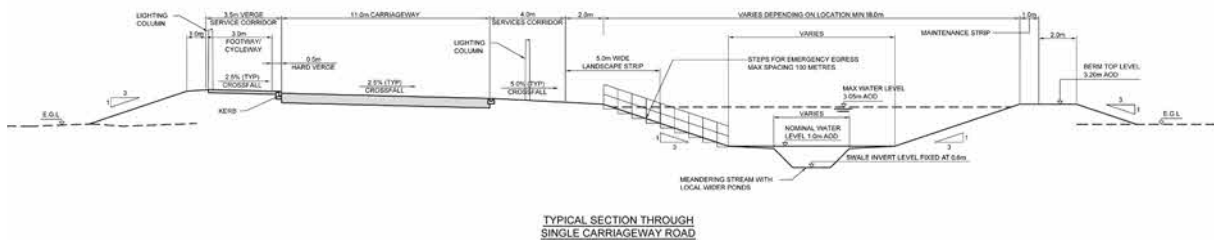
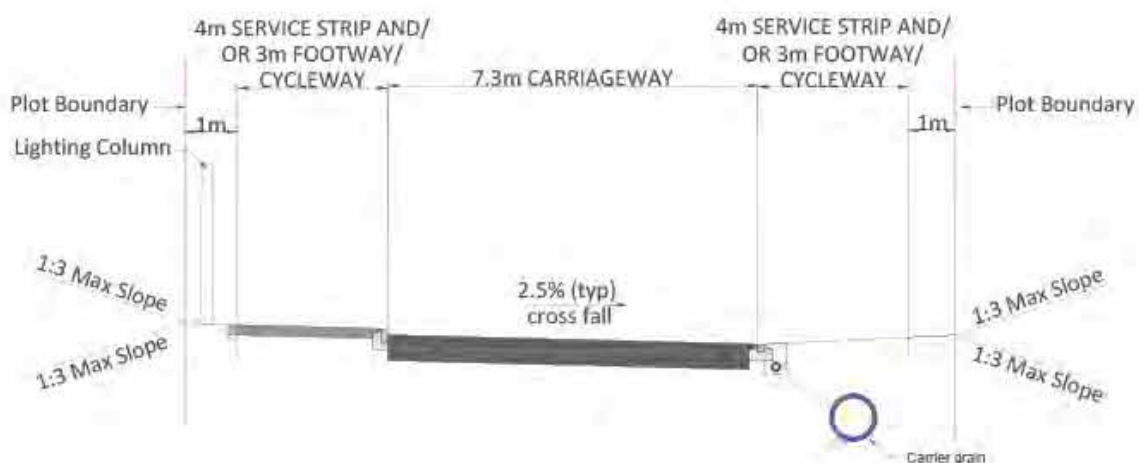


Figure 19: 7.3m Single Carriageway Cross Section where a swale is not required



NB: A footway/cycleway shall be provided on at least one side of the carriageway on Roads 3a, 6c and 10 (see paragraph L1.5 and Figure 17) where there shall be a 7.3m wide road.

Figure 17: Layout and hierarchy of internal access roads

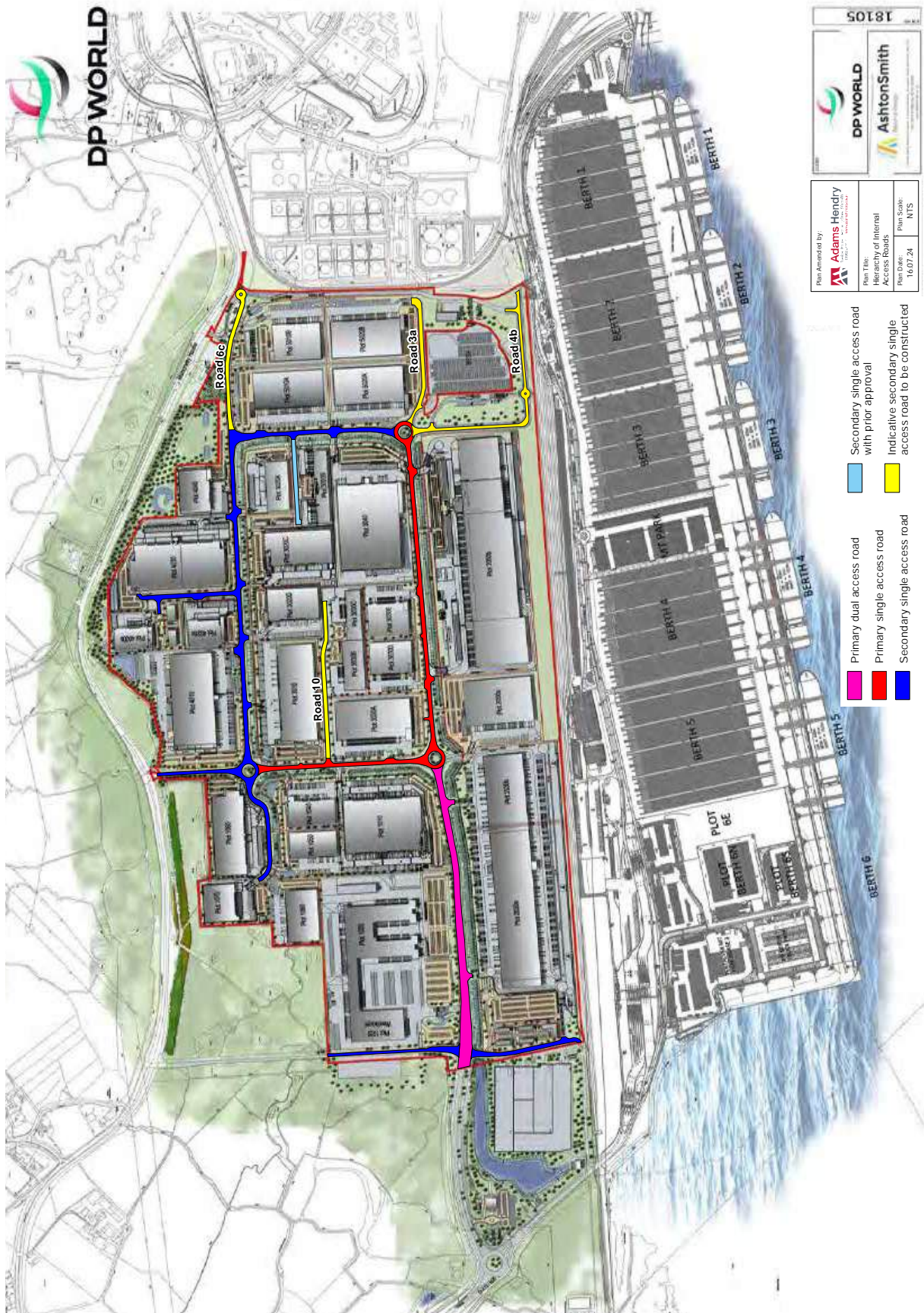
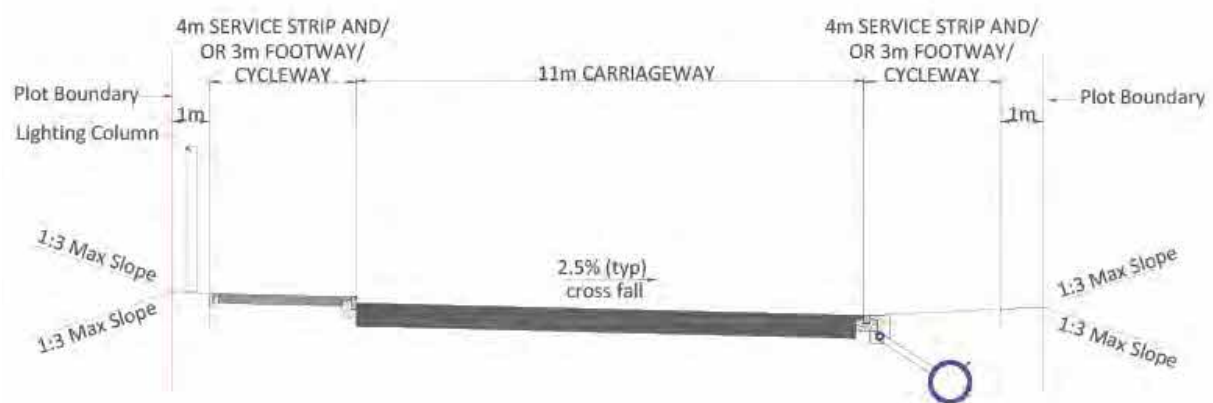


Figure 20: 11m Single Carriageway Cross Section where a swale is not required



NB: A footway/cycle way shall be provided on at least one side of the carriageway on Roads 3a, 6c and 10 (see paragraph L1.5 and Figure 17) where there shall be a 11m wide road.

L1.4 As a minimum, a 3m wide footway/cycleway shall be provided on one side of the single secondary access roads marked 3a, 6c and 10 as shown on Figure 17.

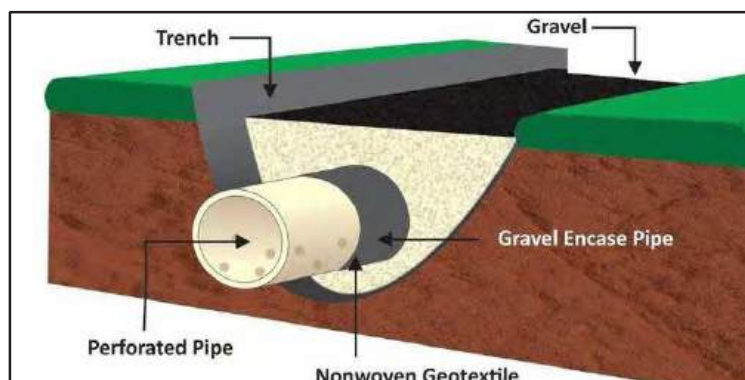
L1.5 Save for wayfinding signage all roads shall be constructed in accordance with requirements set out in the Design Manual for Roads and Bridges (DMRB).

L1.6 Security fences or gates shall not obscure sight lines of any junction on the public highway or any vehicular access to the highway.

L2 Road Drainage

L2.1 The drainage design for the remaining carriageways to be constructed on the Park shall be compliant with DMRB CG 501 – Design of Highway Drainage Systems and shall adopt one of the following systems:

- Combined surface and sub-surface drains**
 An underground porous carrier pipe, bedded in a trench filled with granular material (Type A, B or C, as defined in MCHW Series 0500 [Ref 7.N]).



- **Combined kerb and drainage channel**
Inlets on the kerb face, connected to an enclosed internal drainage channel.



- **Grassed water channels (swales)**
Grassed drainage channel that runs parallel to edge of the carriageway (see Table 16 for dimensions).



- **Kerbs and gullies**
Gullies in the carriageway connected to a longitudinal carrier drain, or pipe set, within the road verge.



- **Linear channel drains**
An underground channel with a covered with a grating.



L2.2 The type of road drainage system that is adopted will be dependent on the specific characteristics of the road in the subject location. Where a section of road has:

- Edges of cuttings or is within central reserve, combined surface and sub-surface drains will be adopted; or
- Long stretches with minimal longitudinal gradients of less than 1%, combined surface and sub-surface drains, combined kerb and drainage channels, or grassed water channels (swales) will be adopted; or
- Nosings of interchanges, linear drainage channels or combined kerb and drainage channels will be adopted; or
- Roundabouts, combined kerb and drainage channels or kerbs and gullies will be adopted; or
- Areas of congested public utility services, combined surface and sub-surface drains or combined kerb and drainage channels will be adopted; or
- Areas where level restrictions create shallow outlets to the drainage system, combined kerb and drainage channels will be adopted.

L3 Pollution Control

L3.1 Equipment to contain spillages including oil booms, drain blockers and dams to contain soluble pollutants, shall be made readily available by London Gateway Services Limited (LGSL).

L3.2 Spillage containment facilities shall be provided at roundabouts and major junctions where an increased risk of vehicle collision/overtaking exists. Slots for stop logs at the upstream end of the culverts shall be included within the design of the culverts.

L4 Materials

L4.1 Materials for road construction shall be compliant with the appropriate British Standard or other relevant specification.

L4.2 Secondary roads, roundabouts and development plot entrances shall be predominantly asphalt.

L4.3 Standard profile concrete kerbs shall be used adjacent to footpaths / cycleways. High profile concrete kerbs shall be used at HGV entrances and HGV accessible locations.

L4.4 Road marking shall be in white or yellow thermoplastic paint and kerbs shall be used to provide protection to pedestrian areas.

L4.5 When available, suitably recycled, locally sourced and low carbon materials shall be used where these conform to the necessary standards and will meet the necessary performance standards or specification.

Standards for Footpaths and Cycleways

L4.6 Footways/cycleways shall be a minimum of 3m width.

L4.7 Where footways/cycleways are liable to vehicle over-run, materials shall be restricted to:

- Bituminous materials to DMRB standards unless there is a need to match existing paths surfaced with Hot Rolled Asphalt (HRA).

- Resin bound material – Highways Authorities Product Approval Scheme (HAPAS) certified with a minimum design life of 25 years.
- Where appropriate, concrete block paving, including tumbled blocks, 100mm x 200mm x 80mm.

L4.8 Where the footway will not be over run or otherwise damaged by vehicles the following paving may be used in addition to that noted above.

- 400mm x 400mm x 65mm standard concrete paving slabs.
- 400mm x 400mm x 65mm textured concrete paving slabs.

L5 Bus routes and facilities

L5.1 An indicative bus route through the logistics park is shown on Figure 21. The timing of the implementation of the bus service shall be agreed with the London Gateway Travel Plan Committee. Raised level bus stop kerbs shall be incorporated along the bus route to create a level entry platform in locations which are to be agreed with the London Gateway Travel Plan Committee.

L5.2 A bus stop flag with timetable case shall be provided at all bus stops. Where appropriate the flag shall be attached to other street furniture to minimise clutter, otherwise it shall be fitted to a proprietary bus stop pole. Bus stop pole, flags and timetable cases shall be from the current range set out in the Essex County Council Street Materials Guide or any such subsequent guidance as may be produced by Thurrock Council.

L5.3 Where provided, bus shelters shall be metal framed in black to RAL 9005, with a low barrelled or vaulted roof. Shelters shall be fitted with end panels to provide protection from the weather with a clear view panel on the bus approach side. Shelters shall be in accordance with the Accessible Bus Stop Design Guide (Bus Priority Team technical advice note BP1/06 January 2006) prepared by Transport for London (TFL) or the latest equivalent guidance.

L5.4 Bus shelters shall be fitted with bench seating with armrests, although perch seating may be installed if space is limited. All bus shelters shall be fitted with plates showing the bus stop name on the kerb face and shall have an information board installed.

L6 Soft landscaping

Infrastructure Corridors

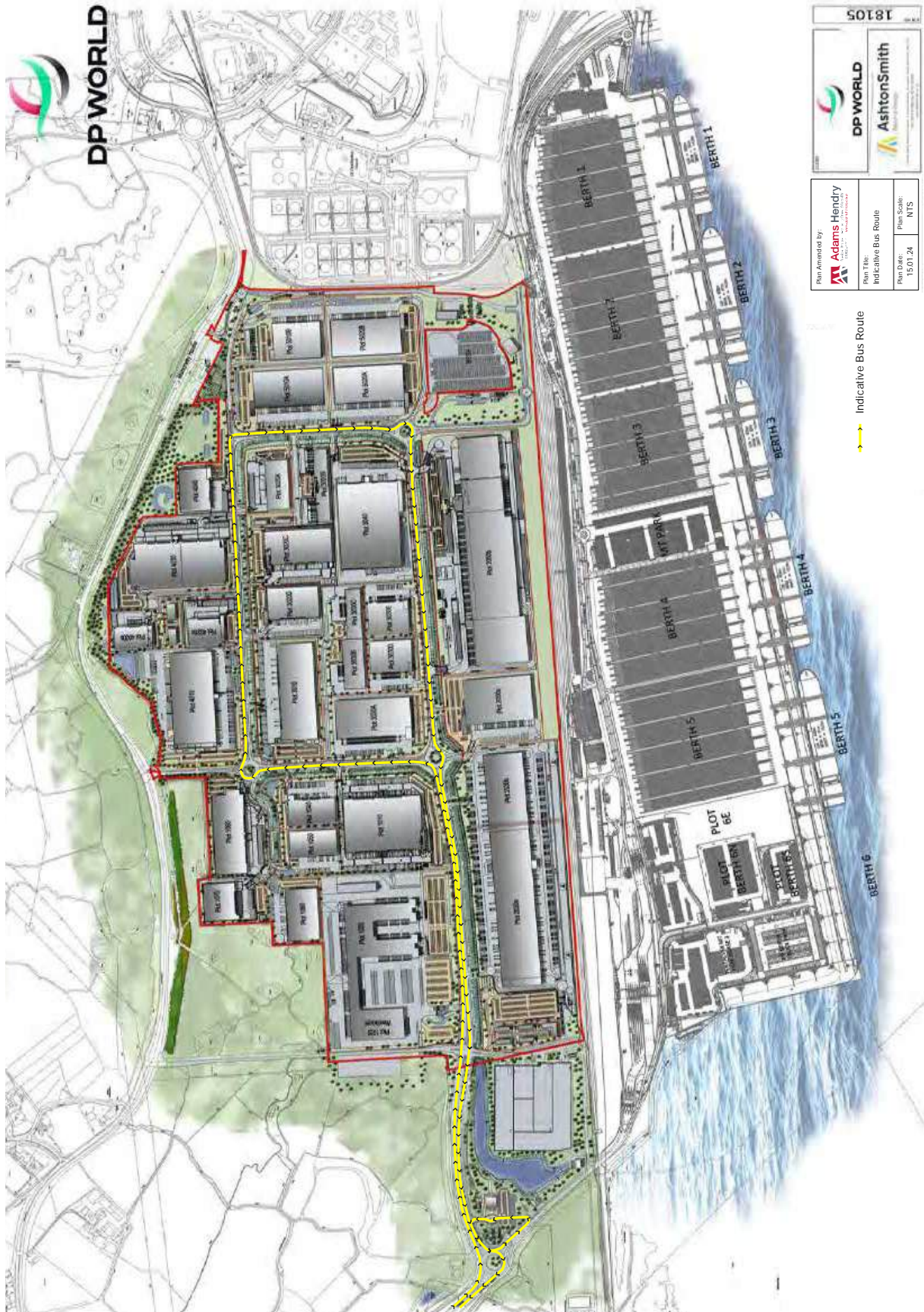
L6.1 Landscaping aligning the remaining infrastructure corridors to be constructed shall include a range of planting treatments created in linear sections not exceeding 80m in length and shall be predominantly native and smaller in scale than that on the primary access roads.

L6.2 A native hedgerow shall be planted where 10m planted buffer strips on plots abut infrastructure corridors to establish a dense edge and deter access.

L6.3 Service corridors aligning infrastructure corridors shall be predominantly grass seeded or turfed, with the occasional block of ground cover planting to provide low level screening and to discourage public access to the swales.

L6.4 The planting schemes shall take into consideration the required visibility for road users.
Roundabouts and Plot Entrances

Figure 21: Indicative bus route plan



L6.5 Specimen trees, ornamental shrub planting and formal hedgerows shall be permitted at key nodes to provide interest.

L7 Lighting Requirements

General Considerations

L7.1 The general standards set out at paragraphs B8.1 – B2, B8.4 - B8.7, B8.9 - B8.10 shall apply to all exterior lighting across the site. References to lighting equipment are indicative and may be amended subject to achieving the stated performance requirements.

L7.2 Lighting equipment when installed, shall meet the lighting constraints defined in ILP Guidance Notes GN01/21 for the control of obtrusive light for the Environmental Zone applicable to the location of the site (see Figure 8). Additional care shall be taken to minimise light spill and glare from any lighting installed by ensuring the correct luminaire is selected and installed in line with the recommendations within CIE 2017 and ILP GN01/21. The design shall ensure the mounting heights employed are the minimum necessary to achieve the lighting performance requirements. Horizontal illuminance levels shall not exceed 1.0 lux at 25m from the Park Site boundary and 0.1 lux at 50m from the Park Site boundary. When lighting levels are measured, meter readings should be within tolerance as per BS667:2005 – Table 2.

L7.3 Lighting columns shall have foundations suited to the ground conditions to maintain lifetime stability and safety and may need to be piled.

L7.4 Where items of equipment outside of plot boundaries may require emergency maintenance works (i.e. penstocks), local task lighting may be installed in accordance with the Chapter 24 of the CIBSE SLL Lighting Handbook 2018. These are to be controlled to ensure that such lighting is only energised during the maintenance operation.

Lighting Classes

L7.5 The lighting classes for roads footways and cycleways would be as set out in BS 5489-1: 2020 Code of practice for the design of road lighting – Part 1: Lighting of roads and public amenity areas or as subsequently modified and BS EN 13201:2015 Road Lighting. The lighting classes for outdoor work areas would be as set out in BS EN 12464-2:2014 Light and Lighting – Lighting of workplaces; Part 2: Outdoor work places.

Primary and Secondary Roads

Performance Requirements

L7.6 The lighting of secondary roads shall be designed to lighting class ME3b of BS5489-1:2020. The performance requirements are:

Average luminance, Lav:	1.0cd/sq.m
Overall Uniformity, Uo:	0.40 minimum
Longitudinal Uniformity, Ul:	0.60 minimum
Threshold Increment, TI:	15% maximum

L7.7 At roundabouts and junctions luminance performance criteria shall not apply and these should be treated as Conflict Areas where CE class illuminance criteria shall apply.

L7.8 At junctions with primary or secondary roads, the lighting shall meet class CE2 of BS 5489-1 2020 and BS EN 13201-2:2015 as follows:

Average illuminance, Eav:	20 lux
Overall Uniformity, Uo:	0.40 minimum

Equipment details

Luminaire and lamp:	Blade style luminaire such as the Thorlux Starbeam SB088R5 or equivalent, RA>60, colour <3000K optimised lumen output, incorporating 7 pin mini NEMA socket for lighting management system
Lighting column and bracket:	Thorlux Starbeam or similar, column and bracket or equivalent of 10m maximum height
Mounting attitude:	Zero inclination

Installation Geometry

L7.9 Single Carriageway: Lighting columns shall be mounted in a single sided arrangement at the rear of the cycleway/footway with setback in accordance with BS5489-1:2020 at an optimised spacing.

Lighting for Formal Footways and Cycleways

L7.10 Where there is a footway or cycleway alongside the carriageway, the Edge Illuminance Ratio of the luminaires installed for the carriageway lighting shall provide sufficient lighting of the footway and cycleway without the need for supplementary lighting.

L7.11 Where footways are remote from other lit areas dedicated lighting shall be provided to lighting class S4 of BS 5489-1:2020.

Performance Requirements

L7.12 The performance requirement for lighting class P4 is:

Average illuminance, Eav:	5 to 7.5 lux
Minimum illuminance, Emin:	1.0 lux

L7.13 This level can be further reduced dependent upon the Ra and the S/P ratio of the lamp in accordance with Clause A 3.3.3 of BS5489-1:2020.

Equipment Details

Luminaire and lamp:	Slade style luminaire such as the Thorlux Starbeam SB088R5 or equivalent, RA>60, Colour < 3000K optimised lumen output incorporating 7 pin mini NEMA socket for lighting management system
Lighting column and bracket:	Raising and lowering column and 0.5m bracket of 5m maximum height.
Mounting attitude:	Zero inclination

Installation Geometry

L7.14 Single Carriageway: Lighting columns shall be mounted in accordance with the requirements of Paragraph L7.9.

Lighting for Bus Stops

L7.15 Lighting columns shall be positioned so as not to obstruct bus doors and shall be located outside the boarding/alighting zone. An enhanced level of street lighting shall not be necessary at bus stops.

L7.16 Electrical supply for bus shelter lighting and communications shall not originate from the street lighting supplies unless it is supplied via a feeder pillar to allow the electricity supply to be isolated.

L8 Signage

L8.1 Estate signage shall accord with Traffic Signs Regulations and General Directions 1981 (or any revisions thereto) to maintain a coordinated appearance to the development.

L9 Emergency Access

L9.1 Gates 1, 2 and 3 shall be utilised to provide an alternative access route for emergency vehicles and buses and operational vehicles during emergency scenarios. These routes shall comprise a minimum of single lane roadways of 3.7m width with locked gates to the perimeter of the site.

L9.2 Access requirements for fire and rescue vehicles shall comply with Part B, Section 16 of the Building Regulations (Volume 2, 2006 Edition, Amended 2007 and 2010) or as subsequently revised.

M Park Drainage Standards

M1 Surface Water Drainage

M1.1 The runoff from the road network shall drain via a network of swales to a balancing pond (Carter's Bay Lagoon) before being pumped to the River Thames.

M2 Swales

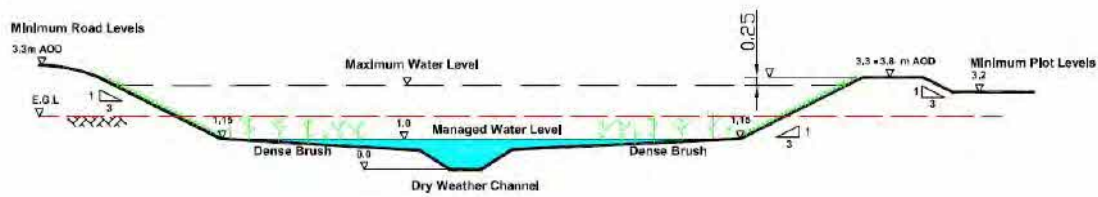
M2.1 A network of swales shall act as the arteries of the drainage system, conveying the flow to the balancing pond. The swales will also act as a balancing and storage system under storm conditions.

M2.2 The swales shall be sized to fit within the infrastructure corridor allowed in the Masterplan. The overall widths of the swales may vary between 18m to 26m. The invert level of the swales shall be set at 0.6m AOD at the head falling to Ordnance Datum (0.0m AOD) at the outfall to Carter's Bay Lagoon. Culverts shall be used at road crossings and entrances to plots.

M2.3 The depth of water flow in any swale shall be limited to allow a minimum freeboard 0.25m during the 1 in 100 year event + 25% allowance for climate change to provide a margin of safety against flooding.

M2.4 A typical swale cross section is shown in Figure 22.

Figure 22: Swale cross section



M2.5 The maximum water level at the heads of the swales shall be approximately 3.31m AOD. A minimum clean water flow in the swales shall be ensured at all times to provide the required dilution for the treated sewage effluent discharging from the plots as required by the Environmental Permit.

M2.6 The groundwater table varies across the site. The base of the swales is expected to be permanently submerged within the groundwater table. The groundwater level is expected to be between approximately 1.25m AOD at the head of the system and 1.0m AOD at the receiving lagoon. Adjacent to the permanent water shall be an area of landscaping described as “dense brush”.

Table 16: Summary of Design Parameters

Item	Parameter	Nominal	Minimum	Maximum
Swale	Width		18m	26m
	Depth		2.8m	3.4m
	Water level		1m AOD	3.31m AOD
	Water depth		1m	3m
	Side slope	1:3		
	Dry weather channel – side slope	1:2		
	Dry weather channel – base wide	1m		
	Road crossing culvert effective area		2 sq.m	4 sq.m
Design Standard	Swale	1 in 100 year + 25% Climate Change		

M2.7 Plans of the surface water drainage infrastructure shall be submitted to the Lead Local Flood Authority (LLFA) for information no later than the submission date of a prior notification request.

Planting Regime in Swales and Ponds

M2.8 The swales shall contain a combination of planting treatments, including meadow and damp tolerant wild flora seeding, marginal / aquatic planting, native shrub planting and standard tree planting. Variation shall be achieved along their length through the use of differing plant species.

M2.9 The composition of the wildflower seed mix shall include species that are able to thrive in drier conditions at the upper margins of wetlands and damp tolerant varieties capable of establishing on the lower slopes.

M2.10 Species selection for marginal plants shall be robust and able to cope with changes in water level. Over time there shall be a subtle adaptation in the planting scheme in response to fluctuations in water level and management techniques.

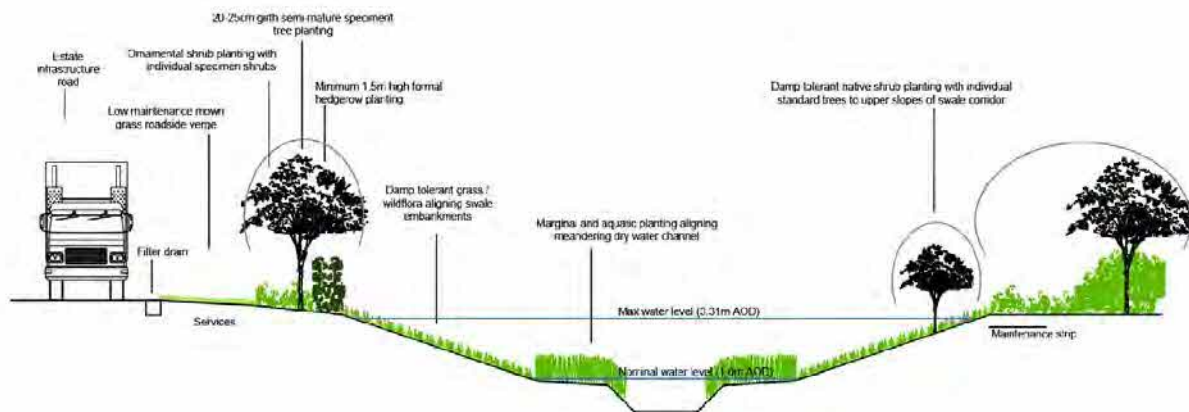
M2.11 Hedgerows and shrub planting shall be provided along the swale corridor (see Figure 19) to provide low level screening and to discourage public access to the swales and guide movement. Timber knee rails shall be installed as a guide to pedestrians where planting is not otherwise present.

M2.12 Drainage swales aligning the infrastructure corridors shall include a range of native planting treatments along their length. Whilst narrower than those adjacent to the primary internal access roads, drainage swales on secondary single access roads shall still include a range of planting treatments.

M2.13 Steps shall be incorporated into drainage swales to allow access for maintenance and safety. Slopes within swales and water bodies shall not exceed a maximum gradient of 1:3.

M2.14 For safety, where stepped access is not otherwise provided, water bodies shall be designed to accommodate areas where the maximum gradient does not exceed a slope of 1:5.

Figure 23: The Drainage Swales, Wetlands and Edge Landscape



M3 Standby Generator

M3.1 A standby generator shall be installed adjacent to the pumping station before 515,000 sq.m floorspace (gross internal area (GIA)) is occupied.

M4 Pollution Control

M4.1 Equipment to contain spillages, including oil booms but also drain blockers and dams to contain soluble pollutants shall be made readily available by LGSL.

M4.2 Slots for stop logs at the upstream end of the culverts carrying the swales beneath Park roads and plot accesses shall be included within the design of culverts.

M4.3 The swale drainage systems may be provided with planting and reedbeds that promote treatment, where feasible to do so, without compromising their primary purpose of conveying water to the pumping stations.

M5 Operation and Maintenance

M5.1 The swale shall be maintained through a simple regime of occasional grass cutting, annual clearance of more excessive vegetation and major clearance / reshaping every 5 to 10 years.

N Land Raising

N1 Land Raising

N1.1 Earth re-profiling shall raise the site to the levels set out in Section D of the CoCP. The raised site shall be tied into the existing landform along its edge at a gradient not exceeding 1:3.

N1.2 The fill material for land raising shall meet the requirements of the Environmental Permit (Reference EPRIYP3691 EK/A001).

O General Landscaping Requirements

O1 Soft Landscape Specification

O1.1 Native shrub, woodland planting and areas of mown and wildflower grassland shall predominate unless otherwise described in this Design Code.

O1.2 Plant species in general will include (but will not necessarily be restricted to) those listed within Appendix 1.

O2 Edge of Site

O2.1 Re-graded slopes to plots shall be aligned along their upper edge by standard trees in a native hedgerow. Understorey and woodland planting will also be established on a minimum of 50% of the remaining slope area.

O3 Street Furniture, Boundary Treatments & Feature Elements

O3.1 Street furniture and boundary features within infrastructure corridors shall be selected to provide visual interest to the scheme and respond to the individual needs of each development phase.

O3.2 Street furniture (i.e. seating, cycle storage) shall be grouped together and located in close proximity to key building entrances.

O3.3 Street furniture products shall be applied in families which are complementary to one another.

Finishes

O3.4 All street furniture items shall conform to the following finishes:

- Timber elements: FSC certified hardwood (Iroko, Oak or similar).
- Stainless steel elements: Grade 316 stainless steel (satin polished or brushed finish).

- Galvanised elements: Hot dip galvanised to BS EN ISO 1461.
- Concrete elements: White / light grey smooth finish.
- Powder coated galvanised mild steel elements: RAL 7016 Anthracite Grey.

O3.5 All boundary treatments shall closely reflect the ranges specified in Part A, Section C2.

Bollards:

- shall be manufactured in galvanised steel or brushed grade 316 stainless steel.
- shall be heavy duty and set in a mass concrete surround (Grade ST4) in areas of HGV use e.g. Broxap ‘Manchester’ cast iron or similar.
- shall be tubular with a flat or domed top or square with a flat top.
- shall be flexible highway thermoplastic bollards in accordance with DMRB standards where used in central road carriageways.
- may vary in height from 900-1200mm and in section from 76mm to 204mm diameter depending on their intended use.
- may include reflective banding, recessed banding, internal luminaries and other such accessories.
- may be fixed, collapsible, telescopic, retracting or removable depending on their intended use.
- unless required to do otherwise all bollards will be root fixed below ground.



Manufacturers (or similar)

Broxap (www.broxap.com)	Heavy Duty Bollard
Bailey Streetscene (www.baileystreetscene.co.uk)	Steel Bollard
Woodhouse (www.woodhouse.co.uk)	Geo Bollard

Seating:

- shall be composite galvanized steel or brushed grade 316 stainless steel with FSC hardwood timber; or pre-cast smooth finished concrete.
- may include backrests, armrests, centre armrests and anti-skateboard devices.
- shall be root fixed below ground where manufactured in composite steel and timber.
- Concrete seating units will be of sufficient weight to resist movement.



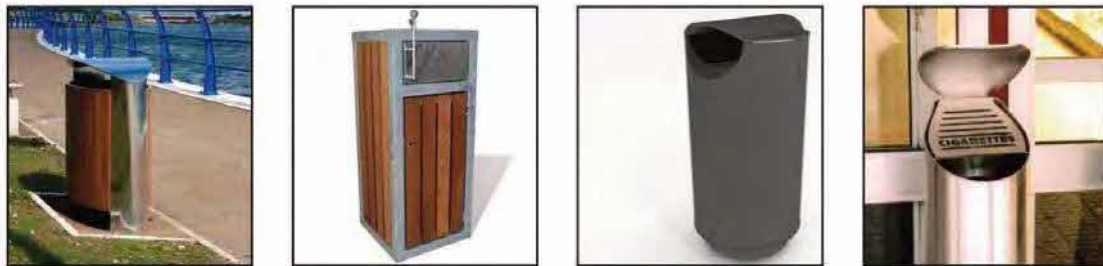
Manufacturers (or similar)

Factory Furniture (www.factoryfurniture.co.uk)
 Falco (www.falco.co.uk)
 Woodhouse (www.woodhouse.co.uk)

Soca Bench
 FalcoBloc Bench
 Geo Bench

Litter Bins / Cigarette Ash Waste Bins:

- shall be manufactured in galvanised steel or brushed grade 316 stainless steel and may include areas of FSC hardwood timber.
- shall be root fixed below ground.
- shall have side apertures to minimise rainwater ingress.
- shall be powder coated galvanised steel in RAL 7016 Anthracite Grey
- maintenance access entry points shall be fitted with secure locking devices.



Manufacturers (or similar)

Factory Furniture (www.factoryfurniture.co.uk)
 Falco (www.falco.co.uk)
 Voss ((www.vossstreetfurniture.co.uk))

Large Round Bin
 FalcoBloc Bin
 LB10t Litter Bin

O3.6 Additional street furniture items may be incorporated into the development. Where required, selection shall reflect the character indicated within the street furniture ranges specified.

O3.7 The detailed specification for boundary treatment set out at Part 1 Section C2 of this document shall also apply across all off-plot areas of the site where required.

Feature Elements

O3.8 Lighting of landscaped areas for aesthetic effect may be provided in accordance with the product specification set out at Part 1 Section C3.

O4 Landscape Management Plan

O4.1 The management and maintenance of the soft landscape components associated with the development shall be in accordance with the Landscape Management Plan set out at

Appendix 2 to ensure the successful establishment of vegetation and overall integration works within the surrounding landscape.

P Service Infrastructure

P1.0 Service infrastructure upgrades to serve the development have been implemented.

P1 Gas Supply

P1.1 A new gas main has been connected to the existing Mains (high/intermediate/medium pressures) that runs parallel to the Manorway on the northern edge of the site. It is routed through to Gate 2 where it runs in parallel with the central access road to individual plot gas governor/governor meters throughout the Park.

P2 Potable and Non-Potable Water Supply

P2.1 Potable water supply is drawn from the existing Essex and Suffolk network which has been routed throughout the Park via Gates 1 and 2.

P2.2 Measures to reduce potable water consumption shall be implemented where practicable following an appropriate feasibility study. Non-potable water shall be used for landscape maintenance wherever possible through the re-use and recycling of rainwater, the import of treated effluent from nearby wastewater treatment facilities or abstraction from shallow groundwater and/or drainage swales on site, taking account of site constraints and license requirements. Abstractions from controlled water including groundwater shall be undertaken only following due process and permitting under the Water Resources Act. A rainwater harvesting system shall be used to supply all toilets in the buildings. Where occupiers require HGV wash facilities, non-potable water shall be used wherever possible through the re-use of recycling of rainwater unless it can be demonstrated that it is unviable.

P3 Electricity Supply

P3.1 An 11kV distribution network has been installed across the site to serve individual plot requirements. The 11kV distribution network is fed from three 33kV/11kV primary substations, which are fed from the 33kV switching station.

P4 Telecommunications

P4.1 The new fibre optic and traditional copper lines required branch off from the surrounding BT network. In addition a new fibre optic network has been provided. These currently run from The Manorway roundabout to Coryton roundabout parallel with the south side of the road and follow existing cabling through Gate 1 and 3 and along the existing access road.

P4.2 A private fibre optic network has been installed in the infrastructure service corridors to support communications of various items such as CCTV, WLAN, BMS, ANPR and access control systems.

P5 Fire fighting systems

P5.1 Fire hydrants, sprinkler mains and sprinkler storage tanks shall be appropriately sited, as required.

P6 Utility Infrastructure

P6.1 Inspection and access chambers, junction boxes, cabinets and feeder pillars shall be located where they will not affect highway safety, cause unreasonable inconvenience to any user of the road network, or detract from the character of the street.

P6.2 Utility infrastructure shall usually be accommodated within the main infrastructure corridors (within 2m of ground level) and within road verges or footpaths.

P6.3 Alternative routes or variations to the corridor dimension shall be considered where appropriate to meet the specific requirements of a development. To ensure that all parties are agreeable to such alternatives or variations, the developer shall obtain the written agreement of each individual service provider and any other party who would be affected.

P7 Sub-stations, Pumping Houses and Other Non-commercial Buildings

P7.1 Sub-stations, ancillary electrical system stations, transformers, ring main units, pumping houses, and gas kiosks shall be constructed using the following materials:

Sub Stations: GRP , RAL 6005 British Racing Green

Ancillary Electrical System Stations: GRP , RAL 6005 British Racing Green

Transformers: GRP , RAL 6005 British Racing Green

Ring Main Units: GRP ,RAL 6005 British Racing Green

Pumping Houses: GRP , to the standard colours set out in Part 1 , Section A4.8

Gas Kiosks: Polyester resin, RAL 6005, British Racing Green.

P8 HGV fuel and wash facilities serving the Park

Common User HGV Fuelling Facility

P8.1 All areas of hard standing associated with the active refuelling areas shall be provided with a surface water drainage system fitted with full retention interceptors and installation of penstocks as appropriate for spill management.

P8.2 Fuel storage tanks shall be double skinned and may be either below or above ground. All fuel storage should comply with the relevant conditions from the Control of Pollution (Oil Storage) (England) Regulations 2001 or the most up to date relevant legislation.

P8.3 Fuelling pumps shall be covered with a canopy with a minimum clear height of 6m and a maximum height to the top of the canopy of 9m.

P8.4 HGV fuelling facilities shall be located adjacent to infrastructure corridors.

P8.5 The layout of the HGV fuelling facility shall be designed to allow for the potential provision of electrical charging infrastructure for HGVs.

Common User HGV Wash facility

P8.6 Wash facilities must be covered with a maximum height to the top of the enclosure of 7m.

P8.7 Surface water should be excluded from the wash facilities drainage system. Wash facilities drainage shall be contained and not connected to the plot surface water drainage, unless consented by the Environment Agency.

HGV Washing / Refuelling Lighting

P8.8 The HGV washing and refuelling lighting shall be in accordance with BS12464-2:2014 Table 5.6. This includes any parking areas, exit and entrance points, checking points and meter reading.

Performance Requirements

P8.9 The lighting of HGV refuelling areas shall incorporate ATEX rated luminaires. ATEX generally refers to the hazard of explosive atmospheres due to flammable gasses or combustible dust in the air. The lighting levels shall range from 5 lux average with a uniformity of 0.25 for parking areas up to 150 lux average (under canopy) with 0.4 uniformity for checking points or meter reading areas.

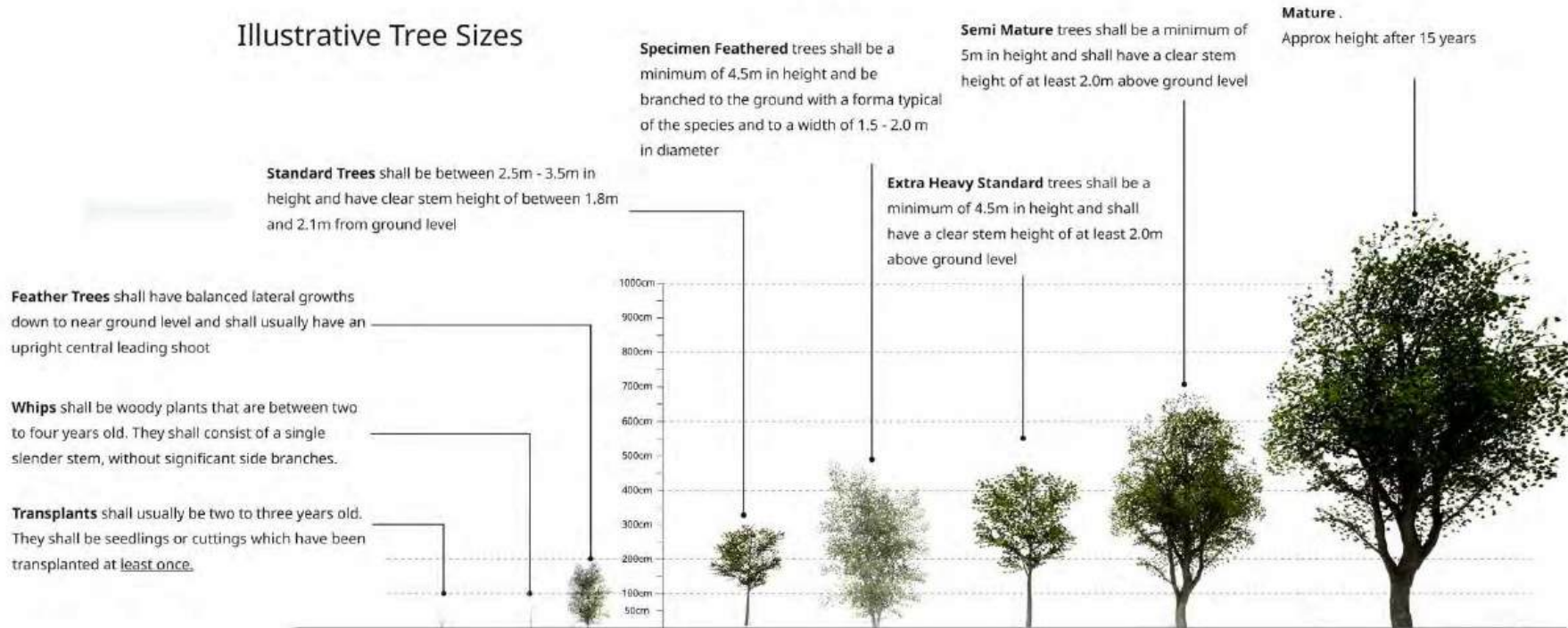
Lighting Arrangement

P8.10 The lighting for non-canopied areas shall be column mounted luminaires with up to a 45 degree asymmetric optic to cover the area with a maximum 5 degree tilt where necessary. Under canopied areas the luminaires shall be bulkhead type with a rating of IP65 for ease of maintenance. All luminaires not under canopy shall have an upward light ratio of less than 2.5% at a maximum mounting height of 10m.

Appendix 1:
Soft Landscaping Specification

Soft landscaping across the site shall be selected to provide interest and vibrancy to the development, to meet the specific site conditions experienced at London Gateway, and to optimise wildlife benefit and potential for habitat creation. Selection shall include (but shall not necessarily be restricted to) the following palette of tree, plant and seed species.

Illustrative Tree Sizes



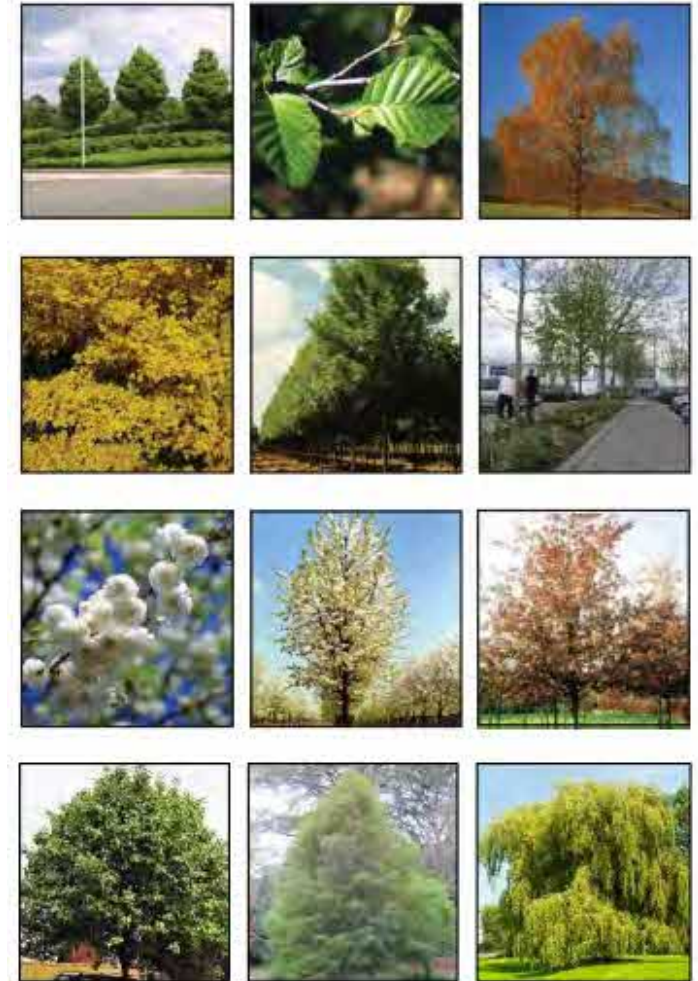
Specimen Trees

Specimen trees shall include Semi Mature, Extra Heavy Standard and Specimen Feathered species in advanced state of growth. Tree species shall be planted within woodland areas to create a high canopy structure and within the park (singularly, in small groups and as linear blocks) to provide structure and a sense of scale against the large built form. Tree planting aligning the infrastructure roads shall provide a distinctive identity to the park, with larger species focussed at key nodes, such as roundabouts, entrance points, etc. Semi Mature trees shall be secured below ground in 2.0m x 2.0m x1.0m tree pit; Extra Heavy Standards trees shall be supported with double staked, cross bar, rubber tie and spacer in a 1.5m x 1.5m x 1.0m tree pit; Feathered trees shall be supported with double staked, rubber ties and spacers in a 0.6m x 0.6m x 0.6m tree pit, Multistem trees shall be secured below ground in 1.2 x 1.2m x0.8m tree pit.

Where specimen trees... are proposed to be arranged in rows or closely spaced groups these shall be of the same species and specification.

Tree selection shall include, but shall not necessarily be restricted to, the following species.

Species	Form	Minimum	Root Type	Supply	Clear Stem
<i>Alnus incana</i> Laciniata	Semi-Mature	20-25cm girth	Rootballed	5.0-5.5m high	min. 2.0m
<i>Betula utilis</i> Jaquemontii	Semi-Mature	20-25cm girth	Container grown	5.0-5.5m high	min. 2.0m
<i>Carpinus betulus</i>	Semi-Mature	20-25cm girth	Rootballed	5.0-5.5m high	min. 2.0m
<i>Pinus</i> (Austrian Pine)	Semi-Mature	3.0-3.5m high	Rootballed	3.0-3.5m high	Min 0.5m
<i>Pinus sylvestris</i>	Semi-Mature	3.0-3.5m high	Rootballed	3.0-3.5m high	min 0.5m
<i>Prunus avium</i>	Semi-Mature	20-25cm girth	Rootballed	5.0-5.5m high	min. 2.0m
<i>Sorbus aria</i> Majestica	Semi-Mature	20-25cm girth	Rootballed	5.0-5.5m high	min. 2.0m
<i>Taxodium distichum</i>	Semi-Mature	20-25cm grith	Rootballed	5.0-5.5m high	min. 2.0m
<i>Acer campestre</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Alnus glutinosa</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Betula pendula</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Carpinus betulus</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Populus tremula</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Prunus avium</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Prunus avium</i> plena	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Quercus robur</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Salix alba</i>	Extra Heavy Standard	16-20cm	Rootballed	4.5-5.0m high	min. 2.0m
<i>Betula pendula</i>	Feathered	(width 200mm)	Container grown	min 4.0m high	N/A
<i>Betula pubescens</i>	Feathered	(width 200mm)	Container grown	min 4.0m high	N/A
<i>Populus tremula</i>	Feathered	(width 200mm)	Bare root	min 4.0m high	N/A
<i>Amelanchier lamarckii</i>	Multistem	(width 800mm)	Container grown	min 3.0m high	N/A
<i>Amelanchier</i> Ballerina	Multistem	(width 800mm)	Container grown	min 3.0m high	N/A



Formal Hedgerow Planting

Single species hedgerows shall be used to frame views; provide height to low level planting; and give a formal edge to ornamental shrub planted areas; into trenches wide enough to accommodate root growth; at a minimum density of 4 plants/ linear metre and in a double staggered row.

Species	Specification	Density
Elaeagnos x ebbingei	0.8m-1.0m 15L	4 plants per lin. m
Escallonia rubra macrantha	0.8m-1.0m 15L	4 plants per lin. m
Griselinia littoralis	0.8m-1.0m 15L	4 plants per lin. m
Ligustrum ovalifolium	0.8m-1.0m 15L	4 plants per lin. m
Ligustrum ovalifolium 'Aureum'	0.8m-1.0m 15L	4 plants per lin. m
Prunus lusitanica	0.8m-1.0m 15L	4 plants per lin. m



Ornamental Shrubs, Grasses and Groundcover Planting

Ornamental shrub planting shall be concentrated within accent locations around the development (e.g., roundabout junctions, plot entrance points, etc.). Planting shall include a combination of taller specimen shrub species (achieving in excess of one metre ultimate height), low ground cover species (averaging 600mm height) and specimen shrub planting to provide stature at key points. Throughout the development, shrubs shall be planted in single species groups of 3 to 50sqm. Detailed shrub selection shall ensure groundcover shrubs and those of a more compact nature are located near to the front of planting beds, with those of a more upright form located further to the rear. Planting design shall take into consideration highway visibility splay requirements, ensuring species selection is appropriate to maintain clear visibility within these areas. Plant selection shall include, but shall not necessarily be restricted to, the following species.

Species	Specification	Density
Shrubs		
Amelanchier canadensis	60-90cm 5L	2 plants per m ²
Amelanchier lamarckii	60-90cm 5L	2 plants per m ²
Berberis frikartii 'Amstelveen'	40-60cm 3L	3 plants per m ²
Ceanothus 'Blue Mound'	40-60cm 3L	3 plants per m ²
Ceanothus thyrsiflorus repens	40-60cm 3L	3 plants per m ²
Choisya ternata 'Sundance'	60-90cm 5L	3 plants per m ²
Choisya x dewitteana 'White Dazzler'	60-90cm 5L	3 plants per m ²
Cistus 'Silver Pink'	30-40cm 3L	3 plants per m ²
Cistus x corbariensis	30-40cm 3L	3 plants per m ²
Cistus x purpureus	30-40cm 3L	3 plants per m ²
Cornus alba 'Elegantissima'	60-90cm 5L	2 plants per m ²
Cornus alba 'Sibirica'	60-90cm 5L	2 plants per m ²
Cornus Baton Rouge	60-90cm 5L	3 plants per m ²
Cornus stolonifera 'Flaviramea'	60-90cm 5L	3 plants per m ²



Cytisus 'Boskoop Ruby'	30-40cm 3L	4 plants per m ²
Cytisus scoparius	30-40cm 3L	4 plants per m ²
Escallonia 'Red Dream'	60-90cm 5L	3 plants per m ²
Euonymus japonicus 'Chedju'	40-60cm 3L	3 plants per m ²
Hebe brachysiphon 'Wiri Mist'	30-40cm 3L	4 plants per m ²
Hebe Green Gem	20-30cm 3L	5 plants per m ²
Hebe pinguifolia 'Sutherlandii'	20-30cm 3L	5 plants per m ²
Hebe 'Sapphire'	40-60cm 3L	3 plants per m ²
Hebe vernicosa	40-60cm 3L	3 plants per m ²
Hebe x franciscana 'Blue Gem'	20-30cm 3L	5 plants per m ²
Hydrangea macrophylla 'Amethyst'	60-90cm 5L	3 plants per m ²
Hydrangea macrophylla 'Magical'	60-90cm 5L	3 plants per m ²
Lavandula hidcote	20-30cm 3L	5 plants per m ²
Lavandula intermedia 'Grosso'	20-30cm 3L	5 plants per m ²
Lonicera nitida 'May green'	30-40cm 3L	4 plants per m ²
Lonicera nitida 'Baggesen's Gold'	30-40cm 3L	4 plants per m ²
Lonicera pileata	30-40cm 3L	4 plants per m ²
Ligustrum aureum	40-60cm 3L	3 plants per m ²
Mahonia aquifolium 'Apollo'	40-60cm 3L	3 plants per m ²
Mahonia x media 'Winter Sun'	60-90cm 5L	2 plants per m ²
Olearia haastii	40-60cm 3L	3 plants per m ²
Osmarea burkwoodii	40-60cm 3L	3 plants per m ²
Philadelphus 'Belle Etoile'	40-60cm 3L	3 plants per m ²
Philadelphus 'Snowbelle'	40-60cm 3L	3plants per m ²
Pinus mugo	30-40cm 5L	3 plants per m ²
Pinus mugo Mini Mops	30-40cm 5L	4 plants per m ²
Pittosporum tenuifolium	40-60cm 3L	3 plants per m ²
Pittosporum tenuifolium 'Tom Thumb'	30-40cm 3L	4 plants per m ²
Rosmarinus 'Miss Jessopp's Upright'	30-40cm 3L	4 plants per m ²
Salix eleagnos 'Rosmarinifolia'	60-90cm 5L	2 plants per m ²
Sambucus Black Lace	60-90cm 5L	2 plants per m ²
Spiraea japonica 'Anthony Waterer'	40-60cm 3L	3 plants per m ²
Spiraea japonica 'Firelight'	40-60cm 3L	3 plants per m ²
Viburnum opulus	40-60cm 3L	2 plants per m ²
Viburnum tinus 'Eve Price'	60-90cm 5L	3 plants per m ²



Viburnum tinus 'Gwenllian'	60-90cm 5L	3 plants per m ²
Vinca minor	15-20cm 3L	6 plants per m ²
Weigela 'Bristol Ruby'	40-60cm 3L	3 plants per m ²

Grasses

Calamagrostis 'Karl Foerster'	Full Pot 3L	4 plants per m ²
Stipa tenuissima 'Pony Tails'	Full Pot 3L	4 plants per m ²
Phormium 'Platts Black'	Full Pot 3L	3 plants per m ²
Pennisetum alopecuroides	Full Pot 3L	4 plants per m ²
Panicum virgatum 'Shenandoah'	Full Pot 3L	4 plants per m ²
Panicum virgatum 'Prairie Sky'	Full Pot 3L	4 plants per m ²
Miscanthus sinensis 'Gracillimus'	Full Pot 3L	4 plants per m ²
Miscanthus 'Kleine Silberspinne'	Full Pot 3L	4 plants per m ²
Miscanthus sinensis 'Zebrinus'	Full Pot 3L	4 plants per m ²
Carex oshimensis 'Evergold'	Full Pot 3L	4 plants per m ²
Carex buchananii 'Red Rooster'	Full Pot 3L	4 plants per m ²

Herbaceous

Geranium 'Brookside'	Full Pot 3L	6 plants per m ²
Geranium 'Johnson's Blue'	Full Pot 3L	6 plants per m ²
Armeria maritima 'Splendens'	Full Pot 3L	8 plants per m ²
Eryngium x zabelii 'Jos Eijking'	Full Pot 3L	4 plants per m ²
Heuchera 'Palace Purple'	Full Pot 3L	6 plants per m ²
Heuchera Lime Marmalade	Full Pot 3L	6 plants per m ²
Perovskia 'Blue Spire'	Full Pot 3L	4 plants per m ²
Verbena bonariensis	Full Pot 3L	4 plants per m ²



Native Woodland Planting

Woodland planted areas shall establish to form the upper canopy structure across the Development. Species selection and percentage mix shall conform to the densities provided below, with plants arranged on a 1.0m x 1.5m grid. Tree species shall be planted in single species groups of 3-5 within the planting matrix and understorey plants in single species groups of 7-15. Extra Heavy Standard and Feathered trees shall be planted in single species groups at minimum 3.0m spacing. All woodland understorey planting shall be fitted with robust grow tubes supported with a 50x50mm treated softwood stake and all trees mulched (600mm diameter @

Species	Form	size	specification	Height	%
Trees					
Acer campestre	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	3%
Populus var beulifolia	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	2%
Populus tremula	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	3%
Prunus avium	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	2%
Quercus robur	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	3%
Sorbus aucuparia	Extra Heavy Standard	14-16cm girth	Rootballed	4.25-5.00m high	2%
Acer campestre	Feathered		Bare root	1.75-2.00m high	5%
Populus var betulifolia	Feathered		Bare root	1.75-2.00m high	3%
Populus tremula	Feathered		Bare root	1.75-2.00m high	3%
Quercus robur	Feathered		Bare root	1.75-2.00m high	4%
Sorbus aucuparia	Feathered		Bare root	1.75-2.00m high	3%
Understorey					
Acer campestre	Transplant (2+1)		Bare root	60-90cm high	4%
Corylus avellana	Transplant (2+1)		Bare root	60-90cm high	15%
Crataegus monogyna	Transplant (2+1)		Bare root	60-90cm high	15%
Ilex aquifolium	Shrub		5L	60-90cm high	5%
Ligustrum vulgare	Shrub		5L	60-90cm high	5%
Juniperus communis	Shrub		5L	60-90cm high	5%
Taxus baccata	Shrub		5L	60-90cm high	5%
Prunus spinosa	Transplant (2+1)		Bare root	60-90cm high	5%
Quercus robur*	Transplant (2+1)		Bare root	60-90cm high	3%
Salix caprea	Transplant (2+1)		Bare root	60-90cm high	5%



Understorey Native Shrub Planting

Native shrub planting shall be predominate across the development. In combination with Native Woodland planting, it shall create the basis of the landscape infrastructure, providing seasonal interest and the creation of wildlife habitat. Species selection and percentage mix shall conform to the densities provided below, with plants arranged on a 0.75 x 0.75m grid in single species groups of 7-15. Native understorey planting to high profile areas shall be mulched to a depth of 60mm, all stock shall be fitted with robust grow tubes supported with a 50x50mm treated softwood stake.

Species	Form	Specification	Height	%
Understorey				
Cornus sanguinea	Transplant (2+1)	Bare root	60-90cm high	10%
Corylus avellana	Transplant (2+1)	Bare root	60-90cm high	15%
Crataegus monogyna	Transplant (2+1)	Bare root	60-90cm high	20%
Euonymus europaeus	Transplant (2+1)	Bare root	60-90cm high	5%
Ilex aquifolium	Shrub	3L	40-60cm high	7.5%
Juniperus communis	Shrub	3L	40-60cm high	7.5%
Ligustrum vulgare	Shrub	3L	40-60cm high	10%
Prunus spinosa	Transplant (2+1)	Bare root	60-90cm high	10%
Taxus baccata	Shrub	3L	40-60cm high	7.5%
Viburnum opulus	Transplant (2+1)	Bare root	60-90cm high	7.5%



Native Hedgerow Planting

Native hedgerows shall be used to provide a dense, formal edge to native woodland and understorey planted areas. Incorporating a range of species, they shall provide seasonal interest and create a diverse wildlife habitat. Species selection and percentage mix shall conform to the densities provided below, with plants arranged into trenches wide enough to accommodate root growth; at a minimum density of 7 plants/ linear metre; and in a triple staggered row, in single species groups of 3-10 plants. The base of hedgerows shall be mulched to suppress weed growth. ... All stock shall be fitted with robust grow tubes supported with a 50x50mm treated softwood stake.

Species	Form	Specification	Height	%
Cornus sanguinea	Transplant (2+1)	Bare root	60-90cm high	10%
Corylus avellana	Transplant (2+1)	Bare root	60-90cm high	15%
Crataegus monogyna	Transplant (2+1)	Bare root	60-90cm high	20%
Euonymus europaeus	Transplant (2+1)	Bare root	60-90cm high	10%
Ilex aquifolium	Shrub	5L	60-90cm high	7.5%
Ligustrum vulgare	Shrub	5L	60-90cm high	20%
Prunus spinosa	Transplant (2+1)	Bare root	60-90cm high	10%
Viburnum opulus	Transplant (2+1)	Bare root	60-90cm high	7.5%



Wetland Margin / Swale Planting

Native tree and shrub planting shall be established to the upper slopes of wetland areas and swales. Species selection and percentage mix shall conform to the densities provided below, with plants arranged on a 1.0 x 1.0m grid. Tree species (*) shall be planted in single species groups of 3-5 within the planting matrix and shrubs planted in single species groups of 7-15. Standard trees shall be planted at minimum 3.0m spacings within the matrix. Wetland marginal planting shall include a weed suppress weed growth and reduce maintenance requirements. All stock shall be fitted with robust grow tubes supported with a 50x50mm treated softwood stake.

Species	Form	Root Type	Height	%
Acer campestre	Standard (8-10cm)	Bare Root	2.5-3.0m high	2
Alnus glutinosa	Standard (8-10cm)	Bare Root	2.5-3.0m high	4
Prunus avium	Standard (8-10cm)	Bare Root	2.5-3.0m high	2
Quercus robur	Standard (8-10cm)	Bare Root	2.5-3.0m high	2
Salix alba	Standard (8-10cm)	Bare Root	2.5-3.0m high	2
Acer campestre*	Transplant (1+1)	Bare Root	40-60cm high	3
Alnus glutinosa*	Transplant (1+1)	Bare Root	40-60cm high	9
Corylus avellana	Transplant (1+1)	Bare Root	40-60cm high	9
Crataegus monogyna	Transplant (1+1)	Bare Root	40-60cm high	35
Prunus spinosa	Transplant (1+1)	Bare Root	40-60cm high	5
Quercus robus*	Transplant (1+1)	Bare Root	40-60cm high	5
Salix alba*	Transplant (1+1)	Bare Root	40-60cm high	10
Salix caprea	Transplant (1+1)	Bare Root	40-60cm high	7



Marginal / Aquatic Planting

Water bodies and drainage balancing features shall include extensive areas of marginal planting. Shallow planting shelves shall be incorporated into the design of balancing ponds and drainage swales to optimise the visual and habitat benefits of these features. Marginal and aquatic species shall be planted at 5 plants / per sqm. in single species groups of 20-30 plants randomly throughout wetland areas.

Species	Common Name
Callitriche stagnalis	Common water starwort
Lythrum salicaria	Purple-loosestrife
Mentha aquatica	Water mint
Myosotis scorpioides	Water forget me not
Phragmites australis	Common reed
Potamogeton crispus	Curled pondweed
Potamogeton pectinatus	Fennel-like pondweed
Ranunculus aquatilis	Water crowfoot
Veronica beccabunga	Brookline



Seed Mixes

Grass and wildflora seed mixes shall be applied at a rate in accordance with suppliers recommendations. Indicated specification for wildflower areas and wetland / swale areas assumes the use of a clay based landscape fill material. Specification for these areas shall be amended as necessary to reflect findings from soil assessments and agreed with project ecologists prior to sowing.



Seed Mix for Mown Grass Areas

Seed mix for mown grass areas shall be applied to roadside verges, service corridors, within visibility splays, roundabout margins and soft landscaped areas where a more managed appearance is desired.

Seed Mix for Wetland / Swale Areas

Seed mix for wetland / swale areas shall be applied to the embankments of balancing ponds, swales and ditches across the development.

Seed Mix for Shaded Areas

Seed mix for shaded areas shall be applied beneath areas of native woodland planting and understorey native shrub planting to suppress weed establishment.

Seed Mix for Wildflower Areas

Seed mix for wildflower areas shall be applied within open areas where a more 'naturalistic' appearance is acceptable and where temporary earthworks are required.

Species	% Mix	Wildflora Species (20%)	Grass Species (80%)	Wildflora Species	% Mix	Wildflora Species (20%)	Grass Species (80%)
<i>Festuca rubra rubra</i>	30	<i>Achillea ptarmica</i>	<i>Agrostis capillaris</i>	<i>Festuca rubra</i>	25	<i>Achillea millefolium</i>	<i>Agrostis capillaris</i>
<i>Lolium perenne</i>	25	<i>Angelica sylvestris</i>	<i>Alopecurus pratensis</i>	<i>Festuca arundinacea</i>	25	<i>Centaurea nigra</i>	<i>Alopecurus pratensis</i>
<i>Festuca brevipila</i>	20	<i>Caltha palustris</i>	<i>Anthoxanthum odoratum</i>	<i>Cynosurus cristatus</i>	20	<i>Galium verum</i>	<i>Anthoxanthum odoratum</i>
<i>Cynosurus cristatus</i>	12.5	<i>Cardamine partensis</i>	<i>Cynosurus cristatus</i>	<i>Phleum bertolonii</i>	5	<i>Leucanthemum vulgare</i>	<i>Cynosurus cristatus</i>
<i>Agrostis capillaris</i>	10	<i>Filipendula ulmaria</i>	<i>Deschampsia cespitosa</i>	<i>Poa nemoralis</i>	5	<i>Lotus comiculatus</i>	<i>Festuca rubra</i>
<i>Trifolium repens</i>	2.5	<i>Hypericum tetrapterum</i>	<i>Festuca rubra</i>	<i>Stachys sylvatica</i>	3	<i>Plantago lanceolata</i>	<i>Phleum bertolonii</i>
		<i>Iris pseudacorus</i>		<i>Borago officinalis</i>	2.2	<i>Primula veris</i>	
		<i>Lotus pedunculatus</i>		<i>Silene dioica</i>	2	<i>Prunella vulgaris</i>	
		<i>Lycopus europaeus</i>		<i>Silene latifolia</i>	2	<i>Ranunculus acris</i>	
		<i>Lythrum salicaria</i>		<i>Geum urbanum</i>	2	<i>Rhinanthus minor</i>	
		<i>Pulicaria dysenterica</i>		<i>Teucrium scorodonia</i>	1.5	<i>Rumex acetosa</i>	
		<i>Ranunculus acris</i>		<i>Galium album</i>	1.1	<i>Silaum silaus</i>	
		<i>Scrophularia auriculata</i>		<i>Tori japonica</i>	1	<i>Silene flos-cuculi</i>	
		<i>Silene</i>		<i>Filipendula ulmaria</i>	1	<i>Trifolium pratense</i>	
		<i>Succisa pratensis</i>		<i>Hypericum perforatum</i>	1	<i>Vicia cracca</i>	
				<i>Malilotus albus</i>	1		
				<i>Hyacinthoides non-scripta</i>	0.5		
				<i>Stellaria holostea</i>	0.5		
				<i>Digitalis purpurea</i>	0.4		
				<i>Lychnis flos-cuculi</i>	0.4		
				<i>Clematis vitalba</i>	0.3		
				<i>Allium ursinum</i>	0.1		

Landscape Soils

The development shall include a significant amount of earth re-profiling to raise the site. In addition to the main land raise elements, significant earth shaping shall take place on the individual plots and phases to include mounding and sculpting to enhance enclosure and accommodate drainage requirements. An engineered fill layer shall be used to raise the site and a new 'landscaping soil profile' (to include topsoil and subsoil layers) shall be placed over this fill layer to provide appropriate growing conditions in areas to receive soft landscaping.

Different planting environments require certain soil properties in order to meet their inherent cultural requirements and to minimise the stress caused during transplanting and the establishment phase of a new landscape scheme. In order to ensure that each planting environment has soils that meet its specific requirements, a series of soil types that are likely to be required for the landscape scheme have been identified (see Table 1 below).

Table 1: Soil Types

Soil Type	Planting Environment
Multi-Purpose Topsoil #	Specimen trees in soft landscape areas Ornamental shrubs and groundcover planting Formal hedgerow planting Native woodland planting Understorey native shrub planting Native hedgerow planting Mown grass areas Meadow grass for shaded areas
Low Fertility Topsoil	Wetland margin / swale planting Marginal / aquatic planting Willflower seeded areas (sp. wildflower) Damp tolerant seeded areas (i.e swales / wetlands)
Landscape Subsoil	All soft landscape areas
Urban Tree Soil	Specimen trees in hard landscape areas
Washed Sand	Specimen trees in hard landscape areas

localised adjustments to composition and fertility may be made to suit specific requirements of certain species

Multi-Purpose Topsoil shall either have the soil characteristics of Multipurpose Topsoil (as defined within BS33882:2015) or be a manufactured topsoil specifically developed by a suitably qualified soil scientist to meet the demands of the proposed planting types and species.

Low Fertility Topsoil shall either have the soil characteristics of Specific Purpose - Low Fertility Topsoil (as defined within BS33882:2015) or be a manufactured topsoil specifically developed by a suitably qualified soil scientist to meet the demands of the proposed planting types and species.

Landscape Subsoil shall be a Class 4 granular fill material with a moderate to high drainage rate in order to compliment the overlying topsoils. The quality of the subsoil shall be suitable for the proposed planting types and species.

Urban Tree Soil shall be an engineered topsoil specifically designed to leave space for air, water and root growth and prevent subsidence of the surrounding area.

Washed Sand shall be used as subsoil in the lower part of specimen tree pits in hard landscape areas. Washed sand shall be a suitably graded, quarried washed sand that shall provide sufficient porosity when in a compacted state to allow suitable drainage and aeration.

All landscape soils shall be tested to ensure they are not contaminated with hazardous material or substances including controlled waste: or hazardous wastes: or radioactive wastes. All topsoils shall be tested to ensure they do not contain concentrations of toxins, pathogens or other extraneous substances harmful to plant life. All soils shall be handled in accordance with best practice.

Landscape soils shall be deposited to the vertical depths indicated in Table 2 below.

Table 2: Soil Profiles

Planting Type	Topsoil Thickness	Subsoil Thickness	Soil Profile Thickness
Specimen trees in soft landscape areas	350mm	650mm	1000mm'
Specimen trees in hard landscape areas	600mm	400mm	1000mm
Ornamental shrubs and groundcover planting	350mm	650mm	1000mm'
Formal hedgerow planting	400mm	600mm	1000mm'
Native woodland planting	300mm	700mm	1000mm'
Understorey native shrub planting	300mm	700mm	1000mm'
Native hedgerow planting	300mm	700mm	1000mm'
Wetland margin / swale planting	300mm	200mm	Variable
Marginal / aquatic planting	300mm	200mm	Variable
Mown grass areas	150mm	350mm	500mm
Meadow grass for shaded areas	150mm	350mm	500mm
Willflower seeded areas	150mm	350mm	500mm
Damp tolerant seeded areas	150mm	350mm	500mm

* a proportion of this layer may need to be replaced with gravel for drainage or water attenuation purposes.

Tree Pits

Tree species shall be planted into pits of sizes as indicated in Table 3 below:

Table 3: Tree Pit Sizes and Hedge Trench Sizes

Tree Size	Tree Pit Size
Whips and feathered trees up to 2.5m in height	600 x 600 x 600mm depth
Formal and informal hedgerows	Trenches sufficient to accommodate roots when fully spread
Standard trees	800 x 800 x 600mm depth
Extra heavy standard and feathered specimen trees	1500 x 1500 x 1000mm depth
Semi mature trees	2000 x 2000 x 1000mm depth

Appendix 2:
Landscape Management Plan

Appendix 2 - Landscape Management Plan

Introduction

This appendix sets out the requirements for the maintenance of landscape works within the London Gateway Commercial & Logistics Park Development (the development). The scope of this report provides a strategy for the management of existing habitats, new habitats and amenity landscape associated with the development.

The overall aim is to adopt a coherent, strategic and integrated approach to the management and maintenance of the soft landscape components associated with the development; ensuring the successful establishment of vegetation and overall integration works within the surrounding landscape. A management approach that is appropriate to both nature conservation and the users of the site and its amenity.

Key Objectives

- To retain and enhance the value of existing landscape features;
- To successfully establish and integrate new landscape proposals and site vegetation with the surrounding landscape;
- To maximise the nature conservation value of both new and existing habitats on the site;
- To accommodate appropriate public use of the site, by promoting a management regime which is appropriate to the site's role;
- To fulfil legal requirements, including nature conservation, environmental protection and general public safety; and
- To ensure the successful establishment and managed growth of all planting and seeded areas.

Description of the Works

The works are applicable to the maintenance of proposed trees, shrubs, hedgerows, woodland planting, mown grass and meadow grass areas to be implemented; any street furniture or paving to be installed; and any existing vegetation to be retained as part of the Development.

Maintenance work within these areas may include:

- Ground preparation;
- Minor topsoiling;
- Grass cutting;
- Edge trimming;
- Tree, hedge and shrub pruning;
- General tree care;
- Watering;
- Treatment of pests and diseases;
- Creation of habitat features;
- Woodland management;

Landscape Management Requirements

General Maintenance Requirements

There are a number of general prescriptions that apply to management of the development. These are:

- All legally designated weeds or invasive plants (identified in Schedule nine, Part II of the Wildlife and Countryside Act 1981 or the Weeds Act 1959) shall be controlled and disposed of in accordance with relevant Natural England; DEFRA; or Environment Agency guidance;
- Vegetation, which suppresses or otherwise inhibits the development of planted species and proper management of habitats shall be restricted and/ or removed;
- Any species which colonise the site, and are incongruous with the planting scheme and / or the surrounding context, shall be removed;
- All areas will be subject to a regular system of litter collection and removal;
- All swale and water body embankments will be subject to regular vegetation clearance, to ensure that a Manning coefficient of 0.075 can be maintained;
- All permanent water channels will be subject to regular vegetation clearance, to ensure that a Manning coefficient of 0.01 can be maintained.

Street Furniture

General

Maintenance

Contractors will undertake the following operations to all street furniture items throughout the life of the development:

- Surface cleaning (in accordance with guidance below);
- Inspect and notify facilities management team of superficial or physical damage to street furniture items; and
- Inspect and tighten (as necessary) all fixtures and fixings.

Cleaning Requirements

Timber Surfaces

- Clean annually with a stiff brush to prevent a verdigris type build up;
- Remove and sand with 100 grit sandpaper any splinters and graffiti; to ensure an even and smooth surface finish.

Galvanised Surfaces

- Clean quarterly using a damp cloth and warm soapy water only.
NB: Scourers and abrasive cleaners are NOT suitable for these types of finish and may damage them.

Powder Coated Surfaces

- Clean quarterly using a damp cloth and warm soapy water only.
NB: Scourers and abrasive cleaners are NOT suitable for these types of finish and may damage them.

Stainless Steel

- Clean quarterly using a stainless steel polish and a lint free cloth.
NB: To remove ground in dirt a stainless steel finishing pad may be required.

Concrete

- Clean annually using an abrasive sponge and warm soapy water only.

Feature Planting

Semi Mature, Extra Heavy Standard & Specimen Feathered Tree Planting

Establishment Maintenance

To ensure their survival and optimal development, these trees will be subject to intensive establishment maintenance. Contractors will undertake the following operations as necessary during the first 24 months after planting:

- Maintenance of a 1.2m diameter weed free area around the base of each tree, through the application of a 75mm depth mulch, keeping a 200mm diameter at the base of the bole free of mulch to prevent basal rot of the bole. Additional spot treatment of using a glyphosphate based herbicide only or hand weeding if necessary to ensure the base of the tree is weed free;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all trees to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of guards, stakes, anchors and ties;
- Adjustment, re-firming and replacing guys, stakes and ties. Replace broken or missing items, adjust if necessary to allow for growth and prevent rubbing of bark;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Removal of any vandalised, unhealthy or dead trees and replacement with plants of the same specification, during the next available planting season.

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 3 to 12+ after planting:

- The formative pruning of specimens to achieve optimum growth rates and maintain a shape, clear of any vehicular or pedestrian circulation routes;
- Maintenance of a 1.2m diameter weed free area around the base of each tree, through the application of a 75mm depth mulch, keeping a 200mm diameter at the base of the bole free of mulch to prevent basal rot of the bole. Additional spot treatment of herbicide or hand weeding if necessary to ensure the base of the tree is weed free till year 3;
- Treatment against pests and diseases with spraying and dusting;
- Inspection, adjustment and maintenance of guards, stakes, anchors and ties;
- Adjustment, re-firming and replacing guys, stakes and ties. Replace broken or missing items, adjust if necessary to allow for growth and prevent rubbing of bark;
- Re-firming of plants after strong winds, frost heave or other disturbances; and
- The removal of redundant guards, stakes and ties at appropriate times to ensure the optimum health of trees.
- Removal of any vandalised, unhealthy or dead trees and replacement with plants of the same specification, during the next available planting season until year 5.

Specimen Shrub, Ornamental Shrub and Groundcover Planting

Establishment Maintenance

To ensure the successful establishment of these planting areas, the Contractors will undertake the following operations as necessary during the first 12 months after planting:

- Application of a glyphosphate based herbicide to shrub planting areas and additional hand weeding of planting beds during the first year to ensure beds are free of weed growth.;
- Annual replenishment of mulch to contract levels;
- Application of a slow release fertiliser to ensure soil fertility is maintained at appropriate levels;
- Treatment against pests and diseases with spraying and dusting;
- Pruning of shrubs for floral, foliage and stem colour effect and to remove weak, dead and diseased branches;
- Pruning of species to ensure correct form;
- Pruning of species to promote flowering/berry production/retention (where appropriate);
- Training and tying of wall shrubs and climbers to walls / frames;
- Remove dead growth and trim herbaceous perennial plants, avoiding damage to any new shoots that have emerged;
- Remove litter and deleterious material;
- Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch;
- Re-firm plants after heavy winds, frost or other disturbances;
- Maintain and replace frames and ties;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Remove any vandalised, unhealthy, dead or short-living plants (as soon as possible) and replace with plants of a similar size to those adjacent, during the next available planting season.

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+ after planting.

- Application of a glyphosphate based herbicide to shrub planting areas and additional hand weeding of planting beds are free of weed growth till year 5;
- Annual replenishment of mulch to contract levels till year 3;
- Application of a slow release fertiliser to ensure soil fertility is maintained at appropriate levels;
- Treatment against pests and diseases with spraying and dusting;
- Pruning of shrubs for floral, foliage and stem colour effect and to remove weak, dead and diseased branches;
- Pruning of species to ensure correct form;
- Pruning of species to promote flowering/berry production/retention (where appropriate);
- Training and tying of wall shrubs and climbers to walls / frames;

Specimen Shrub, Ornamental Shrub and Groundcover Planting

- Remove dead growth and trim herbaceous perennial plants, avoiding damage to any new shoots that have emerged;
- Remove litter and deleterious material;
- Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch till year 3;
- Maintain and replace frames and ties;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth till year 3;
- Heavy pruning of overgrown shrubs and climbers;
- The selective removal of shrubs and other plants from planting beds;
- Removal of ornamental plants that are losing aesthetic appeal and/or function and replace; and
- Remove any vandalised, unhealthy, dead or short-living plants (as soon as possible) and replace with plants of a similar size to those adjacent, during the next available planting season until year 5.

Formal Hedgerow Planting

General Maintenance

Contractor will undertake the following operations within the first 12 months after planting then throughout the life of the development:

- Application of a glyphosphate based herbicide and additional hand weeding as necessary to maintain a 1m diameter weed free area around the base of hedgerow;
- Treatment against pests and diseases with spraying and dusting;
- Annual replenishment of mulch to contract levels;
- Application of a slow release fertiliser around the base of hedgerow plants to ensure soil fertility is maintained at appropriate levels;
- Trimming to encourage sound bushy growth, avoid large bare areas at the base and to maintain an attractive, consistent and densely clipped form;
- Fork over hedge trenches as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch;
- Re-firm plants after heavy winds, frost or other disturbances;
- Remove litter and deleterious material;
- Trimming to a height not exceeding 1.2m with vertical sides;
- Maintain and replace grow tubes and timber stakes;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Remove any vandalised, unhealthy or dead plants and replace with plants of a similar size to those adjacent, during the next available planting season.

Formal Hedgerow Planting

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+ after planting.

- Application of a glyphosphate based herbicide to formal hedgerows and additional hand weeding of hedges to ensure free of weed growth till year 5;
- Annual replenishment of mulch to contract levels till year 3;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of hedgerow plants to ensure soil fertility is maintained at appropriate levels;
- Remove litter and deleterious material;
- Watering of hedge to ensure moisture levels are maintained appropriate for optimum growth till year 3;
- Trimming to a height not exceeding 1.2m with vertical sides; and
- Remove any vandalised, unhealthy, dead or short-living plants (as soon as possible) and replace with plants of a similar size to those adjacent, during the next available planting season until year 5.

Structure Planting

Woodland and Understorey Planting

Establishment Maintenance

To ensure the successful establishment of woodland and understorey planting areas, Contractors will undertake the following operations as necessary during the first 12 months after planting:

- Maintain the woodland and understorey planting weed free, through the application of a translocated herbicide;
- Mulch to tree planting locations within woodland planting annual replenishment of mulch to contract levels;
- In high profile areas adjoining infrastructure corridors annual replenishment of mulch to contract levels;
- Spot treatment of pernicious weeds (e.g., brambles, etc) or undertake by hand if necessary;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all woodland shrubs to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of grow tubes, stakes and ties and make good as necessary;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Remove litter and deleterious material;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Removal of any vandalised, unhealthy or dead shrubs and replacement with plants of a similar size to those adjacent, during the next available planting season;

Ongoing Maintenance:

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+ after planting.

- Maintain the woodland and understorey planting weed free, through the application of a translocated herbicide till year 5;
- Mulch to tree planting locations within woodland planting annual replenishment of mulch to contract levels till year 3;
- In high profile areas adjoining infrastructure corridors annual replenishment of mulch to contract levels till year 3;
- Spot treatment of pernicious weeds (e.g., brambles, etc) or undertake by hand if necessary;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all woodland shrubs to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of grow tubes, stakes and ties, make good as necessary until removed;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Remove litter and deleterious material;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth till year 2;

Woodland Understorey Planting

- Pruning to achieve optimum growth rates and maintain a good shape, clear of any vehicular or pedestrian circulation routes;
- Remove grow tubes, stakes and ties at appropriate times to ensure the optimum health of individual plants;
- Cleaning out and dead-wooding operations (as required);
- Thinning of planting to ensure a desirable woodland character (approximately every 10 to 15 years).
- Coppice 1/3 of Hazel stock on a 5 year rotational basis; and
- Removal of any vandalised, unhealthy or dead plants and replacement with plants of a similar size to those adjacent, during the next available planting season, until year 5.

Native Hedgerow Planting

Establishment Maintenance

To ensure the successful establishment of Native Hedgerow planting, Contractors will undertake the following operations as necessary during the first 12 months after planting:

- Application of a glyphosphate based herbicide and additional hand weeding as necessary to maintain a 1m diameter weed free area around the base of hedgerow;
- Treatment against pests and diseases with spraying and dusting;
- Annual replenishment of mulch to contract levels;
- Application of a slow release fertiliser around the base of hedgerow plants to ensure soil fertility is maintained at appropriate levels;
- Trimming to encourage sound bushy growth, avoid large bare areas at the base and to maintain an attractive, consistent and densely clipped form;
- Fork over hedge trenches as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch;
- Re-firm plants after heavy winds, frost or other disturbances;
- Remove litter and deleterious material;
- Trimming to a height not exceeding 1.2m with vertical sides;
- Maintain and replace grow tubes and timber stakes;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Remove any vandalised, unhealthy or dead plants and replace with plants of a similar size to those adjacent, during the next available planting season.

Structure Planting

Native Hedgerow Planting

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+ after planting.

- Application of a glyphosphate based herbicide to hedgerows and additional hand weeding of hedgerow to ensure free of weed growth till year 5;
- Annual replenishment of mulch to contract levels till year 3;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of hedgerow plants to ensure soil fertility is maintained at appropriate levels;
- Remove litter and deleterious material;
- Watering of hedge to ensure moisture levels are maintained appropriate for optimum growth till year 3;
- Trimming to encourage sound bushy growth, avoid large bare areas at the base and to maintain an attractive, consistent and densely clipped form;
- Remove grow tubes, stakes and ties at appropriate times to ensure the optimum health of individual plants;
- Trimming to a height not exceeding 1.8m where aligning infrastructure corridors and 2.5m in all other areas; and
- Remove any vandalised, unhealthy, dead or short-living plants (as soon as possible) and replace with plants of a similar size to those adjacent, during the next available planting season until year 5.

Lagoon/ Swale Planting

Establishment Maintenance

To ensure the successful establishment of Lagoon woodland and understorey planting areas, Contractors will undertake the following operations as necessary during the first 12 months after planting:

Buffer and Woodland Planting

- Maintain the woodland and understorey planting weed free, through the application of a translocated herbicide;
- Mulch to tree planting locations within woodland planting annual replenishment of mulch to contract levels;
- In high profile areas adjoining infrastructure corridors annual replenishment of mulch to contract levels;
- Spot treatment of pernicious weeds (e.g., brambles, etc.) or undertake by hand if necessary;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all woodland shrubs to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of grow tubes, stakes and ties and make good as necessary;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Remove litter and deleterious material;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Removal of any vandalised, unhealthy or dead shrubs and replacement with plants of a similar size to those adjacent, during the next available planting season;

Tree Planting

- Maintenance of a 1.2m diameter weed free area around the base of each tree, through the application of a 75mm depth mulch, keeping a 200mm diameter at the base of the bole free of mulch to prevent basal rot of the bole. Additional spot treatment of using a glyphosphate based herbicide only or hand weeding if necessary to ensure the base of the tree is weed free;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all trees to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of guards, stakes, anchors and ties;
- Adjustment, re-firming and replacing guys, stakes and ties. Replace broken or missing items, adjust if necessary to allow for growth and prevent rubbing of bark;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth; and
- Removal of any vandalised, unhealthy or dead trees and replacement with plants of the same specification, during the next available planting season.

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+ after wood land planting and year 3 to 12+ for tree planting.

Buffer and Woodland Planting

- Maintain the woodland and understorey planting weed free, through the application of a translocated herbicide till year 5;
- Mulch to tree planting locations within woodland planting annual replenishment of mulch to contract levels till year 3;
- In high profile areas adjoining infrastructure corridors annual replenishment of mulch to contract levels till year 3;
- Spot treatment of pernicious weeds (e.g., brambles, etc.) or undertake by hand if necessary;
- Treatment against pests and diseases with spraying and dusting;
- Application of a slow release fertiliser around the base of all woodland shrubs to ensure soil fertility is maintained at appropriate levels;
- Inspection, adjustment and maintenance of grow tubes, stakes and ties, make good as necessary until removed;
- Re-firming of plants after strong winds, frost heave or other disturbances;
- Remove litter and deleterious material;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth till year 2;
- Pruning to achieve optimum growth rates and maintain a good shape, clear of any vehicular or pedestrian circulation routes;
- Remove grow tubes, stakes and ties at appropriate times to ensure the optimum health of individual plants;
- Cleaning out and dead-wooding operations (as required);
- Thinning of planting to ensure a desirable woodland character (approximately every 10 to 15 years).
- Coppice 1/3 of Hazel stock on a 5 year rotational basis; and
- Removal of any vandalised, unhealthy or dead plants and replacement with plants of a similar size to those adjacent, during the next available planting season, until year 5.

Tree Planting

- The formative pruning of specimens to achieve optimum growth rates and maintain a shape, clear of any vehicular or pedestrian circulation routes;
- Maintenance of a 1.2m diameter weed free area around the base of each tree, through the application of a 75mm depth mulch, keeping a 200mm diameter at the base of the bole free of mulch to prevent basal rot of the bole. Additional spot treatment of herbicide or hand weeding if necessary to ensure the base of the tree is weed free till year 3;
- Treatment against pests and diseases with spraying and dusting;
- Inspection, adjustment and maintenance of guards, stakes, anchors and ties;
- Adjustment, re-firming and replacing guys, stakes and ties. Replace broken or missing items, adjust if necessary to allow for growth and prevent rubbing of bark;

- Re-firming of plants after strong winds, frost heave or other disturbances;
- The removal of redundant guards, stakes and ties at appropriate times to ensure the optimum health of trees; and
- Removal of any vandalised, unhealthy or dead trees and replacement with plants of the same specification, during the next available planting season until year 5.

Marginal/ Aquatic Planting

Ongoing Maintenance

- Remove from site all rubbish and debris from the entire surface of the waterbody, including any partially submerged items;
- Remove from site all invasive weeds from waterbodies by hand-weeding (digging, forking, hoeing or pulling);
- Clear 25% of marginal / aquatic vegetation (generally by hand-pulling, raking or netting) in order to retain areas of open water while at the same time maintaining some vegetation and structural variation. Ensuring that clearance is undertaken in strips across the full range of water depths and reducing the dominant species. arising should be left within 3m of the ponds for 3 hours before removal off site.
- Maintain clear of obstructive elements/ vegetation all inlets and outlets;
- Annually remove (as required) silt from the base of water channels; and
- Remove as required any obstructive elements within the swales to ensure a desirable character.

Mown Grass sward

Establishment Maintenance

To ensure the successful establishment of mown grass sward the Contractors will undertake the following operations as necessary during the first 12 months after sowing

- Contractors will undertake a 'first cut' once the grass has achieved an initial growth of 75mm. The sward will be mown to a height of 40mm and the mower shall have no roller and be sufficiently sharp to avoid root pulling.
- Edging off paths, hard surfaces and landscape beds prior to mowing;
- Hand weed to suppress perennial weeds on a monthly basis during the growing season;
- Water areas to ensure moisture levels are maintained appropriate to develop a healthy grass sward;
- Carefully dig out any residual perennial weeds such as docks; and
- Reinststate and repair failed, damaged, disturbed or worn areas;

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+

- Mowing the established grass sward with a rotary machine to a height of 50mm, whenever the sward achieves a height exceeding 75mm;
- Edging off all paths and kerb edges prior to the mowing season;
- Frequent trimming (or herbicide control) of areas where grass abuts structures such as fences or walls, and around trees and obstacles;
- Watering of areas, using a fine rose spray, to ensure moisture levels are maintained appropriate to develop healthy sward growth;
- Application of spring and autumn fertiliser and overseeding;
- Reinstatement and repair of damaged or worn areas including ruts, molehills, etc. (to maintain a healthy and vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt); and
- Application of a selective herbicide, suitable for suppressing perennial weeds.

Wildflora & Damp Grassland

Establishment Maintenance

To ensure the successful establishment of mown grass sward the Contractors will undertake the following operations as necessary during the first 12 months after sowing.

- Contractors will undertake a 'first cut' once the grass has achieved an initial growth of 75-100mm. The sward will be mown to a height of 50mm and the mower shall have no roller and be sufficiently sharp to avoid root pulling, leave cuttings to dry prior to removal.

Ongoing Maintenance

Following initial establishment, Estates maintenance contractors will undertake the following operations as necessary during years 2 to 12+

- 2no. cut per annum of wild flora areas. Mowing to be undertaken at the middle and end of each growing season and to a height of 50mm;
- 2no. cut per annum of grassland areas (or more if required in order to maintain a Manning coefficient of 0.075). Mowing to be undertaken at the middle and end of each growing season and to a height of 50mm;
- Removing arisings from all areas following each cut, to ensure nutrient levels are kept to a minimum;
- The annual control of undesirable herbaceous species through the sensitive modification of mowing regimes, hand pulling or weed wiping/ spot spraying with herbicides;
- The cutting back at regular intervals (at least every 1-2 years) of any noxious weeds which establish within these areas;
- The re-sowing, and where necessary resolution of any underlying problems, of areas where grass/ flora swards fail to establish or die out.

Existing Vegetation

Existing Vegetation (to be retained)

General Maintenance

Existing vegetation will be subject to a high level of protection and monitoring to ensure their health is maintained throughout the life of the development. Contractors will (as required) undertake the following operations to existing trees to be retained:

- Selective pruning to ensure appropriate spacing in relation to screening requirements and the satisfactory development of the trees for their ecological value, without the trees becoming elongated as a result of overcrowding;
- Crown reduction, shaping, lifting and thinning (as required);
- Cleaning out and dead-wooding operations (as required);
- Thinning to ensure a desirable woodland character (approximately every 10 to 15 years); and
- Remove from site any arisings which result from works to existing trees.

All maintenance activities will be undertaken in accordance with BS3998 and be carefully monitored to eliminate undue stress. Contractors will comply with the current Forestry and Arboriculture Safety & Training Council (FASTCO) recommendations in relation to all aspects of the arboricultural works.

Maintenance Schedule

Street Furniture

Maintenance Requirements

Visual checks for superficial damage	1-12+	4x Annually	Jan	Apr	Jul	Oct
Repairs to street furniture	1-12+	As necessary	Within quarter reported			
Inspect and secure all fixtures and fittings	1-12+	4x Annually	Jan	Apr	Jul	Oct
Clean timber surfaces to remove Verdigris build up	1-12+	Annually	Jan	Apr	Jul	Oct
Remove splinters/ graffiti to timber surfaces	1-12+	4x Annually	Jan	Apr	Jul	Oct
Cleaning of metal surfaces	1-12+	4x Annually	Jan	Apr	Jul	Oct
Cleaning of concrete surfaces	1-12+	Annually	Jan	Apr	Jul	Oct

Feature Planting

General Maintenance Requirements

Spraying or dusting of trees against pests and diseases	1-5	As required	As recommended			
Application of fertiliser to base	1-5	Annually	Mar			
Inspection, adjustment and maintenance of stakes and ties	1-5	2 x Annually	Jan	Feb		Sep
Replace damaged/ vandalised/ unhealthy stock	1-12+	Annually	Jan	Feb		Nov Dec
Watering of area to ensure moisture levels are appropriate	1-5	As required	Apr	May	Jun	Jul
Removal of redundant guards, fencing, stakes and ties	2-12+	Annually	Apr	May	Jun	Jul
Removal of litter	1-12+	4x Annually	Jan	Apr	Jul	Oct

Semi Mature, Extra Heavy Standard & Specimen Feathered Tree Planting

Weed control around base of each tree	1-5	4x Annually	Mar	May	Jul	Sep
Re-firming of trees after strong winds	1-5	As required	All year			
Selective thinning for optimum growth	7-12+	Annually	Jan	Feb		
Formative pruning for optimum growth	7-12+	Every 10 years	Jan	Feb		

Specimen Shrub, Ornamental Shrub and Groundcover Planting

Hand weeding to control weed establishment	1-5	4x Annually	Mar	May	Jul	Sep
Herbicide treatment of shrub planting areas	2-5	3x Annually	Mar	May	Jul	Sep
Spot treatment of herbaceous areas	2-5	3x Annually	Mar	May	Jul	Sep
Replenishment of mulch	1-5	Annually	Mar			
Formative pruning and removal of dead growth	1-12+	Annually	Jan	Feb		
Remove dead growth and trim herbaceous species	1-12+	Annually	Jan	Feb		
Selective thinning for optimum growth	7-12+	Annually	Jan	Feb		
Heavy pruning of overgrown shrubs and climbers	7-12+	Annually	Jan	Feb		

Formal Hedgerow Planting

Hand weeding to control weed establishment	1-5	2x Annually	Apr			Sep
Re-securing of weed suppressing fabric	1-5	Annually				Sep
Trimming of hedgerow to encourage bushy growth	1-5	2x Annually	May			Sep
Trimming of hedgerow to maintain height and clipped form	5-12+	2x Annually	May			Sep

Structure Planting

General Maintenance Requirements

Spraying or dusting of trees against pests and diseases	1-5	As required	As recommended			
Application of fertiliser to base	1-5	Annually	Mar			
Inspection, adjustment and maintenance of stakes and ties	1-5	2x Annually	Jan	Feb		Sep
Replace damaged/ vandalised/ unhealthy stock	1-12+	Annually	Jan	Feb		Nov Dec
Watering of area to ensure moisture levels are appropriate	1-5	As required	Apr	May	Jun	Jul
Removal of redundant guards, fencing, stakes and ties	2-12+	Annually	Apr	May	Jun	Jul
Removal of litter	1-12+	4x Annually	Jan	Apr	Jul	Oct

Woodland Understorey Planting

Weed control around the base of each plant	1-5	4x Annually	Feb	May	Jul	Sep
Spot treatment of pernicious weeds (e.g., Brambles)	1-5	4x Annually	Feb	May	Jul	Sep
Re-firming of plants after strong winds	1-5	As required	All year			
Selective thinning for optimum growth	7-12+	Annually	Jan	Feb		
Mowing of underlying grassed area	1-5	2x Annually	Jan	Feb		
Formative pruning of optimum growth and form	5-12+	Annually	Jan	Feb		

Woodland Specimens

Clearance of woodland shrubs	1-5	4x Annually	Feb	May	Jul	Sep
Weed control around base of each tree	1-5	4x Annually	Feb	May	Jul	Sep
Spot treatment of pernicious weeds (e.g., Brambles)	1-5	4x Annually	Feb	May	Jul	Sep
Re-firming of trees after strong winds	1-5	As required	All year			
Mowing of underlying grassed area	1-5	2x Annually	Jan	Feb		
Formative pruning for optimum growth	7-12+	Every 10 years	Jan	Feb		

Native Hedgerow Planting

Hand weeding to control weed establishment	1-5	2x Annually	Apr			Sep
Re-securing of weed suppressant fabric	1-5	Annually				Sep
Trimming of hedgerow to encourage bushy growth	1-5	Annually	Jan	Feb		
Trimming of hedgerow to maintain height and clipped form	5-12+	Annually	Jan	Feb		

Lagoon Swale Planting

General Maintenance Requirements

Spraying or dusting of trees against pests and diseases	1-5	As required	As Recommended											
Application of fertiliser to base	1-5	Annually	Mar											
Inspection, adjustment and maintenance of stakes and ties	1-5	2 x Annually	Jan	Feb									Sep	
Replace damaged/ vandalised/ unhealthy stock	1-12+	Annually	Jan	Feb										Nov Dec
Watering of area to ensure moisture levels are appropriate	1-5	As required	Apr	May	Jun	Jul	Aug	Sep						
Removal of redundant guards, fencing, stakes and ties	2-12+	Annually	Apr	May	Jun	Jul	Aug	Sep						
Removal of litter	1-12+	4x Annually	Jan	Apr	Jul	Oct								

Lagoon/ Swale Shrub Planting

Hand weeding to control weed establishment	1-5	2x Annually	Apr										Sep	
Re-securing of weed suppressant fabric	1-5	Annually											Sep	
Re-firming of trees after strong winds, frost heave, etc.	1-5	As required	All year											
Selective thinning to retain a dense brush character	3-12+	2x Annually	May										Sep	
Formative pruning for optimum growth	5-12+	Annually	Jan	Feb										

Lagoon/ Swale Standard Trees

Hand weeding to control weed establishment	1-5	2x Annually	Apr										Sep	
Re-securing of weed suppressant fabric	1-5	Annually											Sep	
Re-firming of trees after strong winds, frost heave, etc.	1-5	As required	All year											
Selective thinning to retain a dense brush character	3-12+	2x Annually	May										Sep	
Formative pruning for optimum growth	7-12+	Every 10 years	Jan	Feb										

Marina/ Aquatic Planting

Hand weeding to control weed establishment	1-5	2x Annually	Apr										Oct	
Removal of obstructive elements	3-12+	4x Annually	Jan	Apr	Jul	Oct								
Removal (as required) of excess silt	2-12+	Annually	Apr											

Grassland

General Maintenance Requirements

Removal of litter	1-12+	4x Annually	Jan	Apr	Jul	Oct								
-------------------	-------	-------------	-----	-----	-----	-----	--	--	--	--	--	--	--	--

Mown Grass

Mowing of grass with a rotary machine	1-12+	As required	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct				
Edging off paths and kerb edges	1-12+	Annually	Mar											
Trimming of grass areas abutting structures	1-12+	As required	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct				
Replacement of damaged or worn areas	1-12+	Annually	Mar	Apr										Nov Dec
Application of selective herbicide	1-12+	Annually	As Recommended											
Watering of area to ensure moisture levels are appropriate	1-5	As required	Apr	May	Jun	Jul	Aug	Sep						

Wildflower & Damp Grassland

Trimming of grass areas and removal of arisings	1-12+	2x Annually	May										Sep	
Weed control to remove undesirable herbaceous species	1-5	2x Annually	Apr										Sep	
Cutting back of pernicious weeds (e.g., Brambles)	1-5	Annually	Apr										Oct	

Existing Vegetation

Existing Vegetation (to be retained)

Cleaning out, deadwooding and thinning	7-12+	Every 10 years	Jan	Feb										
Crown reduction, shaping, lifting and thinning	7-12+	Every 10 years	Jan	Feb										
Formative pruning for optimum growth	7-12+	Every 10 years	Jan	Feb										
Removal of litter	1-12+	4x Annually	Jan	Apr	Jul	Oct								

Appendix 3:
Terms of Reference for London Gateway Services Ltd

Appendix 3

Terms of Reference for London Gateway Services Limited

Management Principles

The principle management aims of London Gateway Services Limited (LGSL) are to:

- achieve and consistently deliver a level of service and environment to occupiers that reflects a high quality value driven ethos;
- embrace the values of sustainable practices, relating to the environment, commercial objectives, social responsibilities, and the essential well-being of all personnel;
- maintain all elements for the long term benefit of the occupiers and their customers;
- seek continual improvement in the provision of services and management disciplines, bringing benefits to occupiers through the Park's adjacency to London Gateway port;
- achieve a secure, safe and world class logistics facility that enjoys long term success.

Management Details

The logistics park Estate will be managed in two principal zones, recognising the development programme and the sharing of certain services and infrastructure facilities. In addition, a third zone will be formed by the private Main Access Road owned by the London Gateway Port Limited.

LGSL will employ managers, facility personnel and administration staff directly, with all services and supplies procured through a strict contract regime that mirrors the corporate disciplines of DP World.

Principle areas of management activity will encompass:

- Park wide occupier engagement, promoting appropriate park community activities, key stakeholder engagement, and providing an estate management forum;
- Company administration, asset management, financial accounting and budgets, and sinking fund management;
- Utility supplies and distribution;
- Water management and drainage;
- Waste and recycling;
- Community networked building and services management system integration and monitoring;
- Landscape and physical environment management;
- Security; hard, observation and preventative regimes;
- Regulatory and statutory compliance, including health and safety;
- Communications and IT, infrastructure and park community network;
- General fabric maintenance and repairs and planned lifecycle maintenance regimes;
- Traffic management, wayfinding and intelligent mapping, travel plan support and co-ordination;
- Specialist services as required.

The LGSL management team recognises the value and quality ambitions of the London Gateway Logistics Park. The team will embrace best practice approach, with the objective to achieve a world class ethos through its provision and co-ordination of management routines and practices.

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 4: Ecological Mitigation and Management Plan (EMMP)



January 2025

London Gateway Park Local Development Order 2

Ecological Mitigation and Management Plan

Contents		Page
Chapter 1	Introduction	2
Chapter 2	Habitat Creation and Management	5
Chapter 3	Great Crested Newts	7
Chapter 4	Wintering Birds	8
Chapter 5	Breeding Birds	9
Chapter 6	Invertebrates	12
Chapter 7	Water Vole	15
Chapter 8	Reptiles	17
Figure 1:	Off-Site Habitat Creation Areas	4

Appendices

- Appendix 1: RSPB Information and Advice Note, 2003
- Appendix 2: Great Crested Newt Ecological Habitat Management and Maintenance Plan (Amendment 014). DP World London Gateway (January 2022)
- Appendix 3: Environmental Advisory Group Constitution

Chapter 1: Introduction

1.1 DP World London Gateway is a deep-water port and logistics park with associated infrastructure that has been partially constructed on the north bank of the Thames Estuary, at the former oil refinery site at Shell Haven near Stanford-le-Hope (Grid reference: TQ 70781 81874).

1.2 The Logistic Park is already partially operational and comprises commercial uses, primarily B8 (storage and distribution uses). On-site habitat corridors comprising of a swale ditch network adjacent to the primary road network have been created. As the site has been developed, the Logistics Park has been cleared of ecological interest and species present on the site translocated to various receptor sites in the vicinity.

1.3 Up to 321,450m² of remaining commercial floorspace is permitted to come forward on the undeveloped plots under the Local Development Order 2 (LDO2), 412, 326m² already having been completed or committed on the site under LDO1 (2012) and LDO1.5 (February 2024) out of a total of 733,776m² permitted by LDO2.

1.4 The London Gateway Ecological Mitigation and Management Plan (EMMP) forms part of the London Gateway LDO2 and must be read in conjunction with it.

1.5 This document provides a framework for compliance identifying mitigation, management, surveillance, and monitoring protocols for terrestrial ecology in the off-site habitat creation areas (refer to Figure 1). The management protocols shall apply also to any on-site habitat creation areas.

1.6 There remains an on-going requirement to ensure that the receptor sites and habitat enhancement areas are monitored and managed appropriately in accordance with the terms of the licences. This EMMP is a compilation of all of the relevant Natural England licence method statements in place at London Gateway Park Development Ltd (LGPDL).

1.7 At the time of writing this EMMP, the active Natural England licences are as follows:

Great crested newt (*Triturus cristatus*) (GCN):

- 2023-66150-EPS-MIT; and
- 2014-2083-EPS-MIT -5.

Water vole (*Arvicola amphibius*):

- 2021-54311-SCI-SCI-4;
- 2023-63909-SPM-WLM-1; and
- 2023-65948-SPM-WLM.

1.8 Some of these mitigation licences may expire, and new ones may be granted during the ten-year period that LDO2 is valid. At all times, mitigation and monitoring outlined in the relevant up-to-date method statements and/or licence conditions will be enforced notwithstanding what is set out in this EMMP as of February 2024.

1.9 The Code of Construction Practice (CoCP) sets out procedures that shall be followed if species are encountered during the construction phase.

1.10 The EMMP does not avoid the need to obtain any necessary environmental permit.

Environmental Advisory Group

1.11 The Environmental Advisory Group (EAG) (formerly known as the Ecological Advisory Group) established by LGPDL has been meeting since 2008. The EAG shall continue to operate for the duration of the LDO.

1.12 The EAG consists of representatives from statutory and non-statutory groups including the Environment Agency, Natural England, the Port of London Authority, the Marine Management Organisation, Thurrock Council, Royal Society for the Protection of Birds (RSPB), and the LGPDL Environmental Assurance Team.

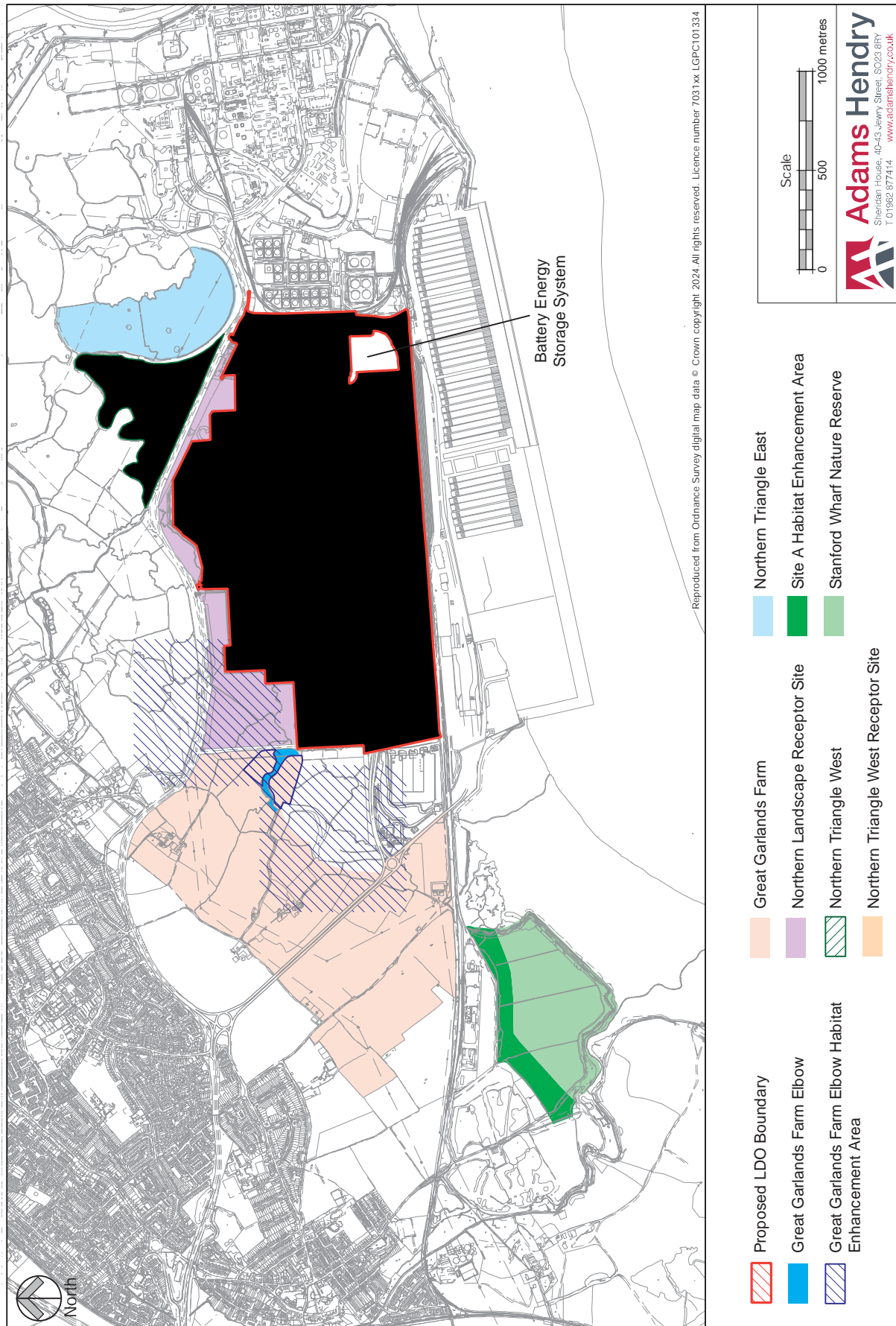
1.13 The EAG shall act in accordance with the terms of reference set out in the constitution included at Appendix 3.

Content of this Document

1.14 This document includes a section on each of the following species groups:

- Great crested newt;
- Wintering birds;
- Breeding birds;
- Invertebrates;
- Water voles; and
- Reptiles.

Figure 1: Off-site Habitat Creation Areas



Chapter 2: Habitat Creation and Management

2.1 Receptor sites at London Gateway have been designed to incorporate both aquatic and terrestrial habitat features, which will be managed to create optimal conditions for great crested newts, and at the same time benefitting other species including invertebrates, reptiles and birds.

2.2 Terrestrial and aquatic habitat enhancement for great crested newts at the receptor sites and habitat enhancement areas has included the creation of coarse grassland areas, scrub areas, dry ditch features, log piles, stone pile hibernacula and ponds. The extent (numbers and areas) of habitat creation works is shown in Table 2.1.

Table 2.1: Extent of habitat creation works for great crested newts at London Gateway receptor sites and habitat enhancement areas

Receptor Site	Habitat	Approximate No. or Area
Great Garlands Farm Elbow Receptor Site (1.35ha)	Ponds	2 (0.05ha)
	Grassland	1.0ha
	Scrub	0.3ha
	Log Piles	8
	Artificial Hibernacula	8
Great Garlands Farm Elbow Habitat Enhancement Area (4.4ha)	Grassland	4.4ha
	Log Piles	4
Northern Triangle East GCN Receptor Site (27ha)	Ponds	24 (0.65ha)
	Grassland	20ha
	Dry Ditches	27
	Scrub	5.5ha
	Log Piles	24
	Artificial Hibernacula	24
Northern Triangle West GCN Receptor Site (~5ha)	Ponds	4 (0.1ha)
	Grassland	3.5ha
	Scrub	1.4ha
	Log Piles	8
	Artificial Hibernacula	8
Northern Landscape Receptor Site (30.5ha)	Ponds	22 (0.59ha)
	Grassland	23.71ha
	Scrub and Trees	6.2ha
	Log Piles	22
	Artificial Hibernacula	22
Stanford Wharf Nature Reserve Enhancement Area (10ha)	Ponds	2 (0.1ha)
	Grassland/Brownfield	9.9ha
	Woodland edge	500m
	Log Piles	2
	Hibernacula	2
Access Road Receptor Site (1.5ha)	Ponds	3 (0.1ha)
	Grassland	1.4ha
	Log piles	5
	Hibernacula	5
Off Site Rail Bend Enhancements (2.08ha)	Scrub	2.08ha
	Log Piles	6
	Hibernacula	6

2.3 The receptor sites shall be managed and maintained in accordance with the measures set out Amendment 14 of the Great Crested Newt Ecological Habitat Management and Maintenance Plan (EHMMP). A summary of the most recent amendment is provided in Appendix 2. The EHMMP is a live document that is subject to amendments through the great crested newt mitigation licencing process with Natural England. The maintenance and management of the receptor sites will be enforced in line with the most update to date great crested newt licence which may change from that outlined in Appendix 2 relevant as of February 2024.

2.4 In addition to the off-site receptor sites, habitat corridors have been created on-site, within the LDO2 boundary. These consist of a swale ditch network, that make up of sloped grassland banks, which transition into dense reed before reaching the open water.

2.5 Although primarily for the benefit of great crested newts, the management of habitats will benefit wintering birds, breeding birds, invertebrates, water voles and reptiles. Only additional habitat creation and management from what is outlined in Table 2.1 and Appendix 2, is specified in each of the species chapters, to avoid repetition.

Chapter 3: Great Crested Newts

3.1 This chapter sets out management, monitoring and surveillance measures for great crested newts, consistent with those set out in Amendment 14 of the Great Crested Newt EHMMP (see Appendix 2) which has been approved by Natural England.

Management and Maintenance

Great Crested Newt Population Monitoring (of the Off Site Habitat Creation Areas)

3.2 Water bodies created for great crested newts shall be monitored in accordance with the conditions outlined in the relevant mitigation licence.

3.3 The survey methodology shall follow that in the English Nature Great Crested Newt Mitigation Guidelines . Six visits shall be conducted each year using the range of standard survey techniques, as appropriate to each water body to provide population size class data for each water body.

3.4 The EHMMP will be kept up to date, with the conditions of any new, granted, mitigation licences.

3.5 A final report of the whole scheme shall be submitted to the EAG. Interim results shall be described in an annual ecology report. LGPDL shall be responsible for ensuring that all monitoring is carried out and reported as required. All monitoring work shall take place on land owned by LGPDL or on land to which LGPDL has access rights.

3.6 As stated in the EHMMP, all 57 ponds will be subject to the standard six visit population monitoring surveys in 2024 with a final round in 2025.

Habitat Monitoring (of the Off Site Habitat Creation Areas)

3.7 Habitats shall be monitored in accordance with the protocols set out in the EHMMP.

3.8 Habitat monitoring and management shall be the responsibility of LGPDL and shall be carried out in until such time as the EAG consider it unnecessary. Action shall be undertaken as appropriate in the event of any negative or sub-optimal results.

Chapter 4: Wintering Birds

4.1 The mitigation, management, monitoring and surveillance measures set out in this section are relevant to all winter bird species present on the site.

Habitat Creation and Management

Northern Triangle West

4.2 A suitable area (minimum 1ha) within the Northern Triangle West shall be stripped to create a series of shallow wader scrapes. The design on the scrapes shall follow the guidance in Appendix 1 wherever possible and Natural England will sign off on the design, and monitoring frequency prior to the works being carried out. Reasonable Endeavours shall be made to ensure that the wader scrapes shall be implemented by December 2026.

4.3 The scrapes and surrounding habitat shall continue to be managed to ensure it is a suitable habitat for Wintering/Breeding Birds by ensuring that grass levels are kept short.

Surveillance and Monitoring of the 'Off' Site Habitat Creation Areas

4.4 The following surveillance and monitoring methods shall be employed on the grazing marshes:

- The grazing marshes in DPW ownership shall be visited twice a month annually, between October and March inclusive, to coincide with a high and low tide cycle. On each occasion, an experienced ornithologist equipped with binoculars and a telescope of appropriate magnification, shall walk over the survey area ensuring that a good view is obtained of each area.
- Waterfowl, primarily waders and ducks shall be counted, though all notable species and large numbers shall be logged.
- Poor weather conditions (e.g. very wet or windy days) shall be avoided as far as possible as this can limit bird activity.
- At the end of the survey, tables of data detailing the results from each visit shall be submitted to the EAG. This shall include date of visit, tide cycle, weather condition, and bird species and numbers. Wintering bird surveys will continue until they are deemed no longer necessary, in consultation with the EAG.
- Surveillance and monitoring of the wader scrapes at the Northern Triangle shall be subject to Natural England's approval.

Chapter 5: Breeding Birds

5.1 The mitigation, management, monitoring and surveillance measures set out in this section are relevant to breeding birds listed in the Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), Species of Principal Importance (SPI), Essex BAP and Red Listed bird species.

Habitat Creation and Management

Park

5.2 Habitat enhancement to benefit breeding birds included the creation of 3.4km of habitat corridors including swales and balancing ponds.

5.3 The swales now colonised with reeds shall be maintained for the benefit of bearded tits, ensuring that some areas of open water are always present. Cutting back of reeds shall only take place outside the breeding bird season (March –September inclusive) and shall be included in the Park maintenance plan. Annual cutting shall be undertaken on a rotational basis where deemed required, and cutting shall not take place throughout the whole site in any one year.

General - Off-Site Habitat Creation

5.4 The habitat surrounding the development (including the Northern Landscape buffer) shall continue to be used to provide nesting habitat for SPI and Red Listed species.

Great Garland Farm

5.5 The Western Grazing Marshes located within Great Garlands Farm shall be managed to ensure that:

- The area is maintained as permanent grassland that shall not be cut for hay or silage before 1st July where possible;
- Fertilizers and pesticides shall only be used in low quantities during nesting bird months;
- Mechanical operations shall not be carried out in the period 1st April to 30th June; and
- Water levels in the ditches and dykes shall be managed to assist in the prevention of these features drying out.

5.6 Seasonal restrictions on hay and silage cutting shall allow the majority of ground nesting birds to raise broods before the habitat is cleared and the restricted application of mechanical operations during the period 1st April to 30th June shall also help to minimise disturbance to breeding birds.

5.7 Six kilometres of selected hedgerows on Great Garlands Farm have been restored by supplementary planting with the aim of creating a variety of dense continuous hedgerows between 2-4m high, 2-3m wide at the base and 1.5m at the top to provide suitable nesting habitat for a variety of birds. Hedgerows located in proximity to areas favoured by wintering waders and waterfowl in the grazing marsh have not been selected for restoration, as these species prefer open habitats.

Ecological Mitigation and Management Plan

5.8 The hedgerows and their understorey have been restored with species of various sizes and longevity, in order that a wide variety of invertebrates are able to populate the habitat. Flowering species have been selected to blossom and set seed/berry at different times during the season providing food for birds at important times of the year.

5.9 Hedges shall be trimmed in January –February, before breeding birds start nesting (trimming shall be avoided between March –August inclusive) and after wintering birds have fed on the berry crop. No hedgerow standard tree shall be felled unless it is a health and safety requirement. Hedge trimming shall be done on a 2 –3 year rotation as required and the trimming of all hedges in the same year shall be avoided.

Northern Triangle East

5.10 The cutting of specific areas, of the 20ha of coarse tussocky grassland, shall only be undertaken by machine in late summer. In addition to the grassland species, this shall allow a variety of herbaceous species to become established that would not typically be able to set seed in grazed areas, such as thistles (*Cirsium* sp.) and teasel (*Dipsacus fullonum*). This shall benefit breeding birds by:

- Providing a different variety of seeds to the grazed areas that shall form a food source for a variety of farmland species such as linnet, yellowhammer and corn bunting;
- Supporting a wide range of invertebrate species that shall provide a food source for insectivorous species such as Cetti's warbler and skylark;
- The additional cover provided by the taller vegetation shall support a large population of small mammals such as short-tailed voles (*Microtus agrestis*) that are important prey items for barn owls and kestrels (*Falco tinnunculus*); and
- Providing suitable nesting habitat for species such as grasshopper warbler (*Locustella naevia*) and skylark (*Aluda arvensis*).

Northern Triangle West

5.11 Thirteen hectares of Northern Triangle West shall be managed to ensure it is a suitable habitat for wintering/breeding Birds.

5.12 The creation of scrapes described in Section 4 to benefit wintering birds, may also benefit ground nesting waders such as lapwing and redshank.

Northern Landscape Receptor Site

5.13 The planting of scrub and trees over 6.2ha has been undertaken to benefit breeding birds by providing suitable nesting and foraging habitat for a variety of farmland birds. The inclusion of tree species in the planting scheme also provides further nesting opportunities for breeding birds that prefer to nest at higher elevations such as hobby (*Falco subbuteo*).

Surveillance and Monitoring

5.14 The following surveillance and monitoring methods shall be employed:

5.15 Surveys (see 5.21) shall be carried out around construction working areas on the logistics park to locate nest-sites of Schedule 1 species and ground-nesting birds for protection, where required.

Ecological Mitigation and Management Plan

5.16 The survey methodology to be employed is the territory (registration) mapping techniques as detailed in 'Bird Census Techniques' (Bibby, C.J., Hill, D.A., Burgess, N.D. and Mustoe, S. (2000).

5.17 A species shall be assumed to be breeding if one or more of the following activities are recorded:

- Territorial/alarm;
- Song;
- Aggressive encounter;
- Occupied nest/nest box/sitting on nest;
- Carrying nest material; and
- Carrying food.

5.18 Observations of birds made in the field shall be recorded directly on to maps to aid the accurate location and recording of the bird's breeding territories. Upon completion of the surveys, the data shall be used to create specific species maps.

5.19 The conservation status of the species recorded as breeding shall be measured against the following criteria, unless superseded, whereby the conservation status will be measured against the new criteria:

- Annex 1 of the EU Birds Directive (Directive 79/409/EEC);
- Schedule 1 of the Wildlife and Countryside Act 1981, (as amended);
- Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act, 2006;
- Birds of Conservation Concern 5 (BoCC5) Red List (Stanbury et al., 2021); and
- Essex local BAP species.

5.20 Species specific maps and territory assessment shall only be undertaken for those species that are covered by one or more of the above criteria.

Timings and Frequency

5.21 Prior to and during the construction period on undeveloped plots, breeding bird surveys shall take place annually between March and June inclusive to encompass the breeding season for various species of birds. The results shall be used to identify any potential nesting bird constraints.

5.22 More frequent specific surveys shall be carried out as required around working areas to locate nest sites of Schedule 1 and ground nesting birds. A Natural England Schedule 1 bird disturbance licence may be required for this activity.

5.23 The results of these surveys shall be reported and presented to the EAG as appropriate.

Chapter 6: Invertebrates

6.1 This chapter sets out mitigation, management, monitoring and surveillance measures for fresh water and terrestrial invertebrates.

Habitat Creation and Management

Park

6.2 'Bee banks' have been incorporated into the habitat creation works within on-site habitat corridors. The south-facing banks shall be kept weed-free and free from chemical treatment. They will be valuable to solitary bee and wasp species to create tunnels for breeding in the exposed earth.

6.3 Approximately 3.4km of habitat corridors have been created in the Park for landscaping, drainage and general biodiversity enhancement, which will also be beneficial to invertebrates. The on-site habitat corridors consist of approximately:

- 3.4km of ditches;
- 9.7ha of grassland;
- 2.14 ha of ha of scrub;
- 2.75ha of reedbed;
- 13 log piles; and
- 13 artificial hibernacula.

6.4 Areas of specific habitat for significant invertebrate species such as sparsely vegetated shingle, rough grassland around bushes and scrub and species-rich wildflower grassland, has been incorporated into the boundary habitat areas.

6.5 Around the boundary of the site and along the road network, areas of scrub and shingle have been incorporated which will provide valuable foraging and nesting habitats to many populations of invertebrates. In addition, green landscaped areas have been seeded with nectar-rich plant species and tall grassland mosaics. Where embankments or mounds are constructed bare ground and 'bee banks' have been incorporated and bare surfaces shall provide further burrowing habitat.

6.6 Management of the swales, the reptile and amphibian refuges and the boundary habitat areas has been designed to provide suitable conditions for invertebrates.

6.7 The use of weed killers on gravelled areas along roads etc. shall be reduced to a minimum. Where this management is considered essential, it shall be carried out on rotation throughout the site so that colonisation can take place from adjacent areas;

6.8 The use of insecticides on the service and landscaping areas shall be avoided where possible.

6.9 The Mosaic Landscaping Area shown in Figure 11 of the LDO2 Design Code shall form a mosaic of short turf, bare ground and flowery swards, of no less than 0.8ha, to provide a further valuable foraging and nesting habitats to many populations of invertebrates which will in particular benefit the shrill carder bee (*Bombus sylvarum*).

Ecological Mitigation and Management Plan

6.10 Cutting shall be varied across the site and different parts of the mosaic shall be cut annually. The cutting of different areas at different times shall ensure a varied structure that is important for invertebrates.

Receptor Sites

6.11 A total of 3.4km of habitat corridors consisting of ditches, grassland, shrubs, woodland, log piles and artificial hibernacula have been created in the receptor sites.

Great Garlands Farm Elbow

6.12 Management of the two ponds shall include the removal of accumulated silt and the cutting back of marginal vegetation to ensure minimal shading.

6.13 Aquatic vegetation removal shall be undertaken every few years or when required. The target for management shall be to create a mosaic of densely vegetated areas with intervening areas of open water. The vegetation that is removed shall be taken away from the pond margins to avoid damaging marginal communities of plants and invertebrates.

6.14 The marginal vegetation shall be managed in order to develop a more varied sward and mosaic of habitats. The cutting of the vegetation shall not occur between the months of May and August inclusive.

6.15 If not grazed by cattle, grass cutting shall be varied across the site and different parts of the grassland shall be cut annually. The cutting of different areas at different times shall ensure a varied structure that is important for invertebrates. Areas shall be left uncut to provide a patchwork of small areas of tall, tussocky grass, offering valuable havens for communities of invertebrates which would be harmed by cutting elsewhere.

The use of weed killers and insecticides shall be avoided where possible or otherwise kept to a minimum. Where it is required, it shall be applied by spot treatment only around the base of newly planted shrubs.

Northern Triangle East Receptor Site

6.16 As with Great Garlands Farm Elbow, the use of weed killers and insecticides shall be kept to a minimum and be avoided where possible. Where it is required, it shall be applied by spot treatment only around the base of newly planted shrubs.

Northern Triangle West Receptor Site

6.17 'Bee banks' have been created to a similar design as those incorporated into the Park Area. The south-facing banks shall be kept weed-free and free from chemical treatment.

6.18 The wader scrapes incorporated into Northern Triangle West are expected to provide additional habitat for invertebrates.

Northern Landscape Receptor Area

6.19 Coarse tussocky grassland habitat shall be managed by grazing at a low stock density, or annual cutting. The height of grass cutting, if undertaken, shall be varied across the site and different areas shall be cut at different times to ensure a varied structure that is important for invertebrates.

Monitoring and Surveillance

6.20 A single habitat and species survey shall be undertaken of the Mosaic Landscaping Area shown on figure 11 of the Design Code once the habitat is considered established (approximately 2 to 3 years post creation) in order to review the habitat suitability and progression and whether any remedial works are required or improvements can be made to ensure that the habitat reaches a good condition. Providing reasonable endeavours have been made to create and improve the habitat, further surveys will not be required.

6.21 To achieve good condition, the habitat must pass all four criteria, including the requirements for Good condition within criterion C.

Table 6.1: Criterion required to achieve Good condition for Open mosaic habitats on previously developed land.

Criteria	
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.
C	Invasive non-native plant species (listed on Schedule 9 of Wildlife and Countryside Act) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area. <i>Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).</i>
D	The parcel shows spatial variation and forms a mosaic of bare substrate plus: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.

6.22 Further terrestrial and aquatic invertebrate surveys of the on-site habitat corridors within the Phase 2 infrastructure shall be undertaken in 2026 with no further requirement thereafter.

Chapter 7: Water Vole

7.1 This chapter sets out mitigation, management, monitoring and surveillance measures for water voles, unless superseded by future method statements and/or licence conditions which will otherwise be enforced.

Habitat Creation and Management

Park

7.2 At least 3.4km of suitable water vole habitat within the development site has been created. A large proportion of this comprises the boundary ditch and habitat corridors.

Receptor Sites

7.3 As outlined in water vole mitigation licences granted by Natural England, habitat has been created and enhanced across the receptor sites including in Northern Landscape and Northern Triangle West.

Responsive Water Level Management

7.4 Water levels shall be managed where appropriate to ensure that excessive flooding or drying out of water bodies on the receptor sites does not occur. The objective of management of this type shall be to create stable water levels for the majority of the water bodies in the receptor area.

Long-term Water Level Management

7.5 Where appropriate, management shall include de-silting of water bodies. The objective of clearance shall be to maintain the drainage function of attenuation pools and drainage ditches and prevent channels becoming choked with vegetation. Detailed de-silting plans shall be informed by up to date water vole survey information to allow lengths containing active water vole burrows to be avoided.

7.6 De-silting shall be undertaken outside of the water vole breeding season (March to September) unless agreed with Natural England, and machinery shall be selected that is appropriate to the task. Works shall be undertaken from one bank only, and efforts shall be made to minimise impacts upon bankside vegetation by confining dredging activity to the central section of the channels where possible.

7.7 To provide short-term refuges for voles during the works, regular sections approximately 10-20m in length, shall be left untouched. To ensure longer term habitat availability at least a third of the total length of each water body shall remain untouched each year. If appropriate, work shall proceed upstream to allow any dislodged plant propagules or invertebrates to float downstream onto the disturbed substrate and colonise such areas.

Bankside Vegetation Management

7.8 Bankside vegetation management in receptor sites shall be undertaken specifically to ensure the continued availability of suitable habitat for water voles and shall be undertaken outside of the breeding season (March to September) unless agreed with Natural England. This shall also facilitate the emergence of a rich grass sward prior to the winter months.

7.9 Management shall aim to maintain marginal vegetation and a 2 metre strip at the top of the bank, in order that cover and food resources are maintained.

Monitoring and Surveillance

7.10 Monitoring of habitat suitability and water vole field signs shall be undertaken in line with any active mitigation licences that have been granted by Natural England.

Mink Control Measures

7.11 Measures to control American mink shall be implemented at all receptor sites in line with good practice, until such time as the EAG consider it no longer necessary.

7.12 Mink control shall be in line with best practice guidelines; Game Conservancy Trust mink rafts shall be employed in order to facilitate this action. Where necessary trapping of mink shall occur year round. However, it is anticipated that efforts shall be concentrated in early spring (February –April) prior to the mink breeding season when mink are known to particularly target over wintering water voles. Any such programme of control shall be included as part of the management strategy for the receptor site concerned.

Translocation Methodology

7.13 Water voles will be trapped and translocated, where required, in accordance with the guidance in the Water Vole Mitigation Handbook for Development and Other Construction Activities (Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016); The Water Vole Mitigation Handbook for Development and Other Construction Activities. Eds. Fiona Mathews & Paul Chanin), unless guidance is superseded, in addition to guidance from Natural England.

Chapter 8: Reptiles

8.1 The mitigation, management, monitoring and surveillance measures set out in this chapter are relevant to the following reptiles that are protected under the Wildlife and Countryside Act 1981 (as amended):

- Common lizard (*Zootoca vivipara*);
- Slow worm (*Anguis fragilis*);
- Adder (*Vipera berus*); and
- Grass snake (*Natrix helvetica*).

Habitat Creation and Management

Park

8.2 Habitat corridors have been provided throughout all areas of the development. At least 3.4km of boundary ditch and habitat corridors including a linear strip of between 2 - 3m of tall grassland has been provided along all bank sides, the cutting of which shall take place annually in late autumn, to no shorter than 100mm. These corridors also provide suitable habitat for reptiles which may re-colonise the site following completion of the development.

8.3 No deadwood shall be removed from the site, rather it shall be transferred to rot down in refuge areas.

8.4 Refugia suitable for basking have been provided in all refuge areas and vegetation shall be cleared back from them annually.

8.5 Reptile habitat creation has been incorporated into parts of the drainage swale network, providing new hibernation sites in areas distant from the railway. Rough grassland provided for water voles and scrub for breeding birds shall also provide good reptile habitat.

8.6 The management measures set out in Appendix 2 for on-site habitat corridors, shall also be implemented for the benefit of reptiles unless superseded by future method statements and/or licence conditions which will otherwise be enforced.

Off-Site Receptor Sites

8.7 Specific reptile habitat has been created in a 10m buffer strip on the perimeter of the Park (Northern Landscape Receptor Site). The receptor area has been fenced off to prevent reptiles re-entering the development site.

8.8 The management measures set out in Appendix 2 for off-site receptor sites shall also be implemented for the benefit of reptiles.

Protection Measures

Installation of Reptile Exclusion Fencing around the Exclusion Zones

8.9 The exclusion fence which forms the perimeter of the Park shall be maintained to prevent reptiles re-colonising the Park until Natural England deem it is no longer necessary through the relevant licences.

Ecological Mitigation and Management Plan

8.10 When required, removal of the exclusion fencing shall be done under the supervision of an ecologist and outside the reptile hibernation period, i.e. between the months of April to September inclusive. An ecologist shall also be present during site clearance in case any reptiles are found.

Appendix 1:
RSPB Information and Advice Note, 2003

Information and advice note!

Version 1 –
June 2003

Compiled by: J. Day, R. Sheldon, N. Symes, G. White, R. Winspear
For further information, contact Graham White at RSPB
On: 01767 680551, or by e-mail at graham.white@rspb.org.uk



Creating wader scrapes and flashes on farmland.

Summary

Several species of wading bird of conservation concern use farmland on which to breed. They may nest in spring crops and tillage on arable land, in wet grassland or in-bye pasture. However, drainage and improvement of grassland to provide better grazing and forage has greatly reduced suitable areas for feeding and nesting. An opportunity to offset some of the declines in breeding waders on farmland is possible through the creation of scrapes and wet flashes with sparse marginal vegetation. These can provide important feeding areas for adult and young birds alike, and can help a range of other important species of bird throughout the year. Table 1 lists the birds likely to benefit by the creation of scrapes and flashes.

Table 1: Birds of conservation concern likely to benefit from the creation of a scrape.

Species	BoCC status	Requirements for nesting	Requirements for feeding
Curlew	Amber	Tussocky damp grassland or heathland.	Pastures, damp fields, particularly with wet flushes
Lapwing	Amber	Short grass (0- 12cm) with some tussocks, spring tillage or bare ground	Short vegetation and wet mud in damp grassland and water margins,
Redshank	Amber	Short (5-15 cm) damp grassland with tussocks, close to standing water.	Damp grassland, marginal vegetation, mud and shallow water.
Snipe	Amber	Wet pastures and boggy heaths with a tussocky sward of 10-30 cm.	Soft damp ground, or shallow muddy bottomed pools. Close to cover.
Oystercatcher	Amber	Short grassland, bare ground or shingle banks, all with open views.	Short grassland, and marginal vegetation with soft damp ground to probe for food.
Ringed Plover	Amber	Bare stony ground including spring tillage	Soft damp mud or dry muddy areas.
Teal	Amber	Tussocky marsh vegetation near shallow water.	Aquatic invertebrates and weed seeds.
! * # \$ % & * (Amber	Tussocky marsh vegetation near shallow water.	Aquatic invertebrates and weed seeds
) *+% '(, *-& (Amber	Tall dense clumps of marsh vegetation in shallow standing water.	Invertebrates
Turtle Dove	Red	Dense scrub and thick tall hedges often in climbers.	Weed seeds especially around short sparse vegetation.
Yellow Wagtail	Amber	Damp meadows or cereal fields	Insects from grazed pasture and short, sparse marginal vegetation around pools.
Song Thrush	Red	Trees, hedges or scrub.	Invertebrates, especially earthworms and snails, and, in autumn, fruit.
Starling	Red	Trees, buildings or nest boxes	Insects and seeds from grazed pasture and short, sparse marginal vegetation around pools.
House Sparrow	Red	Buildings or nest boxes, hedges or scrub	Insects and weed seeds.
Tree Sparrow	Red	Trees, buildings or nest boxes	Insects and weed seeds.
Linnet	Red	Thick thorny hedges. Also, scrub and brambles on grassland and waste ground.	Insects and weed seeds.
Yellowhammer	Red	Thickets and tall thick grass.	Insects and weed seeds.
Reed Bunting	Red	Ditch edges, crops and set-aside. Occasionally in hedges.	Insects and weed seeds.
Corn Bunting	Red	Crops, set-aside and field margins.	Insects and weed seeds.

BoCC= Birds of Conservation Concern: 2002-2007 (RSPB) Red = high concern, Amber = medium concern

The Countryside Stewardship Scheme, operated in England by DEFRA, provides payments to farmers to improve and extend wildlife habitats, including scrapes. This Information and advice note provides guidance on how to create and manage shallow scrapes and wet flashes for wetland birds on farmland. The landscape feature likely to be most appropriate to scrapes within the Countryside Stewardship Scheme is waterside land. Where there are no conflicts with other priorities, scrapes could also be considered for arable land, low lying coastal land, degraded old meadows and pasture, and for upland.

Assessing the habitat

Scrape creation should only be attempted in suitable areas. These are often in low-lying poorly drained areas of fields, where as a result, crop yield and productivity is low. It is important to consider all the issues before proceeding, and where necessary, specialist advice should be sought. Table 2 identifies the key issues needed to be assessed.

Table 2 Key issues to be considered in scrape creation

Issue	Rationale	Points to consider
Geographic location	Breeding waders have been lost from large areas of the country. Newly created habitat may be only slowly colonised by target species.	Target species should ideally be present in the locality to enable colonisation.
Site suitability	Waders generally require unenclosed habitats with an open and tussocky vegetation structure.	The site should be unenclosed, being relatively free of hedgerows, trees and other screening. Is the site accessible for grazing or cutting management required to maintain the habitat structure.
Hydrology and soils	Adult waders and their chicks feed in damp soil and shallow water with muddy margins	Can shallow water be maintained throughout the spring and early summer? (water control structures will be needed to manage water levels in some cases). Are the soils suitable? Free draining soils are generally unsuitable unless the water table is close to the surface. Have the water flows entering or leaving the area been identified and quantified. Consult with appropriate authorities to ensure there is no conflict when altering drainage.
Potential conflict with other features:	A scrape should NOT be created in areas where there is a conflict of interest, for instance where there is: Environmental Historic and archaeological, or Cultural landscape interest.	Does the land have existing conservation value; eg a wet marsh or species rich flower meadow? Is the land a Scheduled Ancient Monument, other archaeological site, or ridge and furrow field system? Are there existing public rights of way?

Creating the scrape

Scrapes may be located in a range of soil and hydrological conditions (see Figure 1) but most frequently will be on relatively level open land, preferably seeking a known damp area where water lies naturally on impermeable soils. Creating a scrape is often simply a case of reversing or reducing the function of drainage in a particular area, in others water may be directed to a chosen location. Assess the soils and drainage patterns for the site and if necessary, block any drains that take water away from the scrape area or redirect others to drain into it. Consider any likely impacts created up-stream by blocking or diverting drainage and consult with the necessary statutory agency (eg The Environment Agency in England and Wales) for further advice. In potentially difficult situations, it may be necessary to assess rainfall against evapo-transpiration and volumes of water flow throughout the critical spring period, using local climate data from the Meteorological Office. Expert assistance may be required at this stage.

There is no minimum size of scrape but 1 hectare will provide an adequate amount of feeding habitat.

Several small flashes could be created instead of one larger one, and will provide more marginal habitat, but may also require more maintenance.

Sculpting a convoluted, or sinuous, edge to the scrape will increase available feeding area and is likely to provide shelter in windy weather.

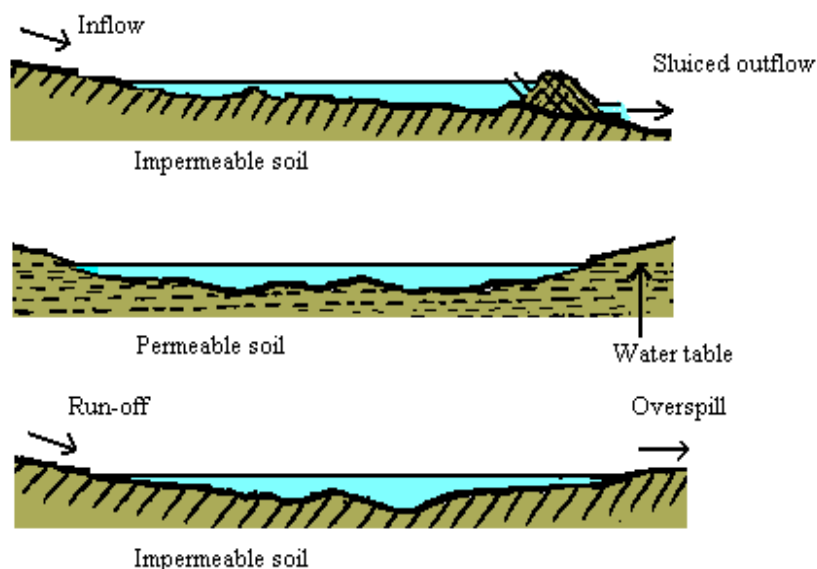
Water depths in the scrape in early spring should typically be between 0–25 cm over half of the area and the remainder 25–50 cm.

Ideally locate in a natural depression; otherwise, earthmoving, undertaken during a dry period, may be required to achieve the correct depth.

A very gentle slope with an uneven finish will allow shallow wet pools to remain longer within the scrape and allow a gradual exposure of the feeding surface.

Any spoil material that is the by-product of excavating the scrape should ideally be removed away from the area. Alternatively, the spoil could be used to construct a bund around the downstream edge of the scrape. Note that this may limit the openness of the scrape and reduce its attractiveness to birds. Bunds need to be carefully engineered so that they are stable and impervious. It is very important to consult with the appropriate authorities to ensure that designs are appropriate and storage capacities are not exceeded, as there are serious safety considerations¹.

Figure 1 Types of scrape



Type A: Dry area with impermeable soil. Water is retained by bunds and a control structure

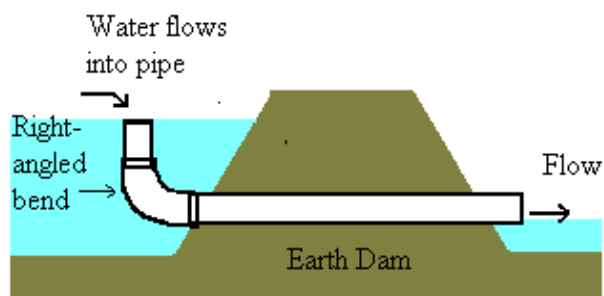
Type B: Permeable soil with high groundwater. Surface flooding occurs in a depression as a result of a high water table.

Type C: Wet area with impermeable soil. Water retained in low-lying wet areas.

Managing water levels

The provision of shallow water and muddy margins are important to feeding waders, and ideally, the water levels in a scrape should be controllable. Without the ability to control the inflow or outflow of water, the scrape may dry out too soon in early dry weather, while a wet spring may result in levels remaining too high. A simple water control device, or sluice, can be installed to help manage levels.

Figure 2: Diagram of a pipe sluice.



The most cost effective sluice is likely to be constructed with a length of plastic piping, either rigid pipe with a swivel end or flexipipe, laid through an earth dam in the outflow ditch or bund (Figure 2). Each end extends beyond the dam, and the upstream end is held at the desired level. Flexipipe will normally need weighting to keep the lip submerged and require a length of rope to hold the upstream end at the desired level. Adjusting the upstream end (by swivelling the pipe or raising or lowering the rope) will set the desired water levels.

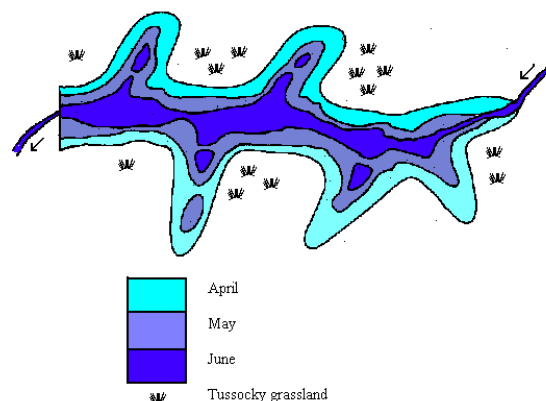
Other options are available, for example: drop-board sluices. These are more costly in time and resource to install. Details of these can be found in Reedbed Management for commercial and wildlife interests (see further reading).

¹ Note: Impounding volumes of water in excess of 25,000m³ above ground falls under 1975 Reservoir Safety Provisions Act. Design and construction under control of DEFRA Panel Engineer and inspected annually. (A bunded scrape with an average depth of 25cm would need to be bigger than 10 ha to exceed this)

The scrape should naturally reduce in depth slowly during the spring through evaporation. Alternatively, depending on weather, let water out of the scrape slowly (1cm depth at a time) to create a muddy fringe. If the sluice is not connected to an existing watercourse, a soak away will need to be created behind the dam to take the water drawn off through the sluice.

In Figure 3 the outer line represents the extent of the open water in early April, ideally surrounded by short grassland with up to 20% tussocky grassland. The middle line represents the shrinking area of water by the end of May and the inner by the end of June. Annual weeds will have grown on the mud and set seed. By August the scrape should be all but dry and ready for management.

Figure 3: Hypothetical scrape, showing receding area of water throughout spring and early summer.



Feeding requirements

Waders and their chicks require a constant supply of high protein invertebrate food throughout the breeding season. A rich supply of insects will also help other birds such as Reed Bunting and Yellow Wagtail, which rely heavily on insect food for their chicks. The conditions created by the periodic flooding and drying of ephemeral water bodies attract a limited but specialised range of invertebrates. These often occur in very high numbers because of reduced competition and few predators. The water body is often nutrient rich because of the levels of organic matter, which encourages high rates of invertebrate reproduction, particularly of midge larvae, which are a valuable food source for waders and their chicks.

As the water levels in the scrape are lowered, or dry naturally, annual plants will germinate on the margins; these provide additional food and cover for chicks. The seeds they produce will accumulate around the edges of the pool and will provide winter food for waterfowl as well as a variety of finches and buntings that come to the shallow margins to drink and bathe.

Maintenance

It will be necessary to manage colonising plants, such as rushes or grasses, to prevent them from choking the whole area. Patchy cover of marginal plants will provide cover for young chicks, but if this exceeds more than 25% of the scrape, then management should be considered. Grazing with livestock at a moderate intensity is ideal as it a) creates a mosaic of tussocks and short turf used for nesting by a range of wader species, b) augments the invertebrate population of the margin through dunging. If grazing is not possible, cutting or cultivation could be used. Cutting should be timed for suitably dry periods after the end of the breeding season, usually between August and October. It is not necessary to remove the cuttings, as they will initially provide a source of seed food and later, as it decomposes, a source of insect food for birds.

Following summer/autumn management, re-flooding in winter will kill colonising perennial vegetation such as grass. Annual weeds, which germinate each year on the muddy margins as the water retreats, are important as they provide a large supply of seeds for dabbling duck as well as number of passerines such as Yellowhammer, Reed Bunting and Linnet.

Further reading²

- Andrews, J & Rebane, M, (1994), *Farming and Wildlife, a practical management handbook*, RSPB.
- Benstead, P, Drake, M, Jose, P, Mountford, O, Newbold, C, Treweek, J, (1997) *The Wet Grassland Guide, Managing floodplains and coastal wet grasslands for wildlife*. RSPB
- Gregory, RD, Wilkinson, NI, Noble, DG, Robinson, JA, Brown, AF, Hughes, J, Procter, DA, Gibbons, DW, Galbraith, CA (2002), *The Population Status of Birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern: 2002-2007*, RSPB
- Gilbert, O.L., Anderson, P., (1998) *Habitat Creation and Repair*, Oxford University Press
- Giles, N., (1992), *Wildlife After Gravel*, ARC/Game Conservancy Trust
- Green, A.J., Hilton, G.M., (1998), *Management Procedures Required to Increase Chironomid Availability to Waders Feeding on Artificial Lagoons Remains Unclear*. *Journal of Applied Ecology*, vol 35 (1) pp9-12
- Hawke, C.J., Jose, P.V., (1996) *Reedbed Management for commercial and wildlife interests*, RSPB
- Murkin, H.R., & Wrubleski, D.A., (1988) *Aquatic Invertebrates of Freshwater Wetlands: Function and Ecology*, in Hook, D (1988) *The Ecology and Management of Wetlands*, vol 1 *Wetland Conservation*, pp 239-249, Croom Helm Ltd.
- Street, M., (1985) *The Restoration of Gravel Pits for Wildlife*, ARC/Game Conservancy Trust

² A complimentary set of Information and Advice Notes on the Ecology and Conservation for tree sparrow, yellowhammer, corn bunting, turtle dove, linnet, lapwing and yellow wagtail, all listed in Table 1, can be obtained from RSPB Conservation Management Advice. There are also available, leaflets for lowland and upland farmland habitats and species. Contact: richard.winspear@rspb.org.uk or telephone: 01767 680551

Case study sites

Old Hall Marshes, RSPB reserve

Old Hall Marshes nature reserve was acquired by the RSPB in 1984 and is run as a working farm as well as a nature reserve composed of several habitat types, including 70ha of improved grassland. The primary management of the reserve is as a traditional grazing marsh, providing sheep and cattle grazing to a number of local graziers.

The current 'improved' grassland is primarily managed for wintering Brent Geese by tightly grazing with sheep and cattle. A low-lying 'creek' feature, a remnant of the old saltmarsh grassland, retained water throughout the winter months but quickly dried out in the spring, minimising any benefit for breeding waders. By controlling water levels, this feature has been enhanced and maintained as a shallow scrape throughout the spring to provide feeding opportunities for breeding waders.

A windpump was installed in 2000 to lift water 2.0 m from the adjacent ditch and circulate through the scrape. Installation costs amounted to £9,000, while ongoing maintenance costs are negligible. Water can be let out of the scrape through a simple sluice mechanism of a 300 mm plastic pipe with a 90 degree 'turner' joint on the upward end. This enable precise water level control on the scrape by turning the joint to the required angle.

Breeding waders have increased from one or two pairs to 15 pairs of Lapwing and eight pairs of Redshank in 2002.



The wader scrape at high winter level, showing shallow pools and long shorelines

Newsham Hall Farm, North Yorkshire

This 330 ha farm supports a diverse range of lowland farmland habitats, including a newly created 31ha wetland complex of open water, fen and grassland.

After discussions with relevant agencies, the landowner was able to reinstate the wetland with a Countryside Stewardship grant to support the capital and revenue costs (£280 per ha for arable reversion to grassland and an annual re-wetting payment of £60 per ha for raised water levels)

Restoration was relatively simple, with the existing drainage infrastructure (an Archimedes Screw sub-soil system) switched off. This allowed ground water to rise, creating an area of shallow water (0.2 – 0.5m deep), surrounded by newly established wet grassland and hay meadows.

This attracts several hundred wintering waders (eg lapwing and golden plover), wildfowl and passage birds. Once the water management and new grasslands are established, breeding wader densities are expected to be high. Breeding reed buntings, sedge warblers and snipe have quickly colonised the wetland fringes.

Water level control – in the first year, water levels remained very high all year, with no lowering of levels during the breeding season to create good wader habitat. A newly installed flexi pipe system on the main ditch should now give the appropriate level of water level control

Grazing management – During the first year, there was no grazing in the wetland compartments. Agreements are now in place to deliver low-intensity cattle grazing year round, possibly using native hardy cattle breeds.

Condition monitoring –regular site visits from DEFRA and bird monitoring from a local volunteer should ensure site management continues to evolve to maximise the site’s biodiversity delivery.

Another CSS agreement is now in place, to convert an adjacent 40ha of arable land, into fenland and wet grassland. A bird hide overlooking the existing wet grassland area is proposed and the farm may be used as a demonstration farm in the future.



Great Bridgeford Hall Farm, Staffordshire.

Under the Countryside Stewardship Scheme, 10ha of floodplain grassland along the River Sow is being managed as extensively grazed damp pasture. Through the RSPB Waders of Wet Meadows project, CSS has been actively promoted and targeted at floodplain sites in Staffordshire, Shropshire and Cheshire. Great Bridgeford Hall Farm came under CS management because of this project.

To introduce in-field wet features and raised water levels, sub surface drains on the site have been exposed, creating shallow, well-profiled, linear scrapes/ditches.

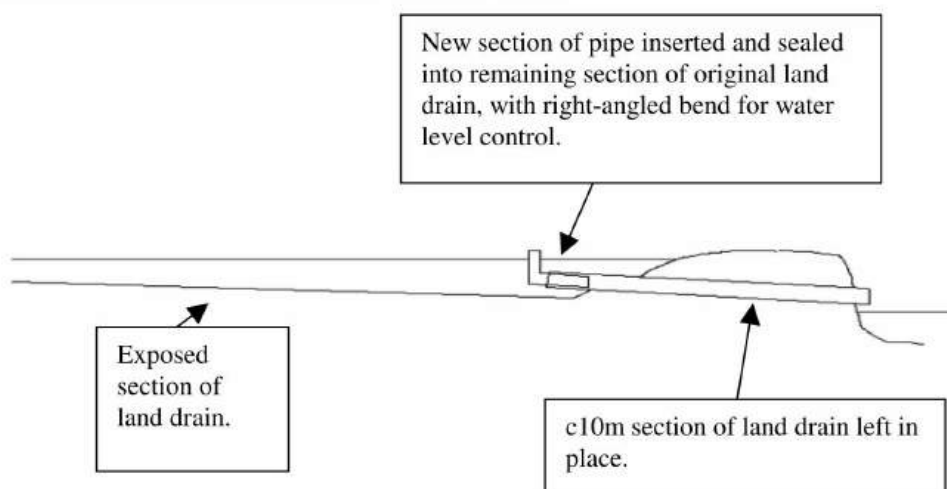
The final 10m of the drain, before they enter the River Sow, have been left intact. Where the remaining length of drain enters the exposed section, a right-angled-bend section of pipe has been inserted and sealed with the remaining land drain, to provide a system of control on water levels held in the exposed sections.

All exposed sections have been kept as shallow as possible, with gentle profiles. The result has been a network of linear, shallow scrapes/ditches across the site, providing plenty of shallow, muddy, margins. The right-angled bend arrangement provides water level control.

As well as creating the in-field wet features, the system has also resulted in raised water levels and some splash flooding across the field surface, away from the scrapes/ditches themselves.

Elsewhere on the site, land drains have been left in place, but blocked using commercially available pipe test plugs.

Longitudinal cross section of new ditch/scrape arrangement.



Appendix 2 :
Summary of London Gateway Great Crested Newt Ecological
Habitat Management and Maintenance Plan (Amendment 014).
DP World London Gateway (September 2022)

Appendix 2 – Summary of London Gateway Great Crested Newt Ecological Habitat Management and Maintenance Plan (Amendment 014). DP World London Gateway (September 2022)

Creation of Favourable Habitat Features

A2.1 Terrestrial and aquatic habitat enhancement for great crested newts at the receptor sites and habitat enhancement areas has included the creation of coarse grassland areas, scrub areas, dry ditch features, log piles, stone pile hibernacula and ponds. The extent (numbers and areas) of habitat creation works is shown in Table A2.1.

Table A2.1: Extent of habitat creation works for great crested newts at London Gateway receptor sites and habitat enhancement areas

Receptor Site	Habitat	Approximate No. or Area
Great Garlands Farm Elbow Receptor Site (1.35ha)	Ponds	2 (0.05ha)
	Grassland	1.0ha
	Scrub	0.3ha
	Log Piles	8
	Artificial Hibernacula	8
Great Garlands Farm Elbow Habitat Enhancement Area (4.4ha)	Grassland	4.4ha
	Log Piles	4
Northern Triangle East GCN Receptor Site (27ha)	Ponds	24 (0.65ha)
	Grassland	20ha
	Dry Ditches	27
	Scrub	5.5ha
	Log Piles	24
	Artificial Hibernacula	24
Northern Triangle West GCN Receptor Site (~5ha)	Ponds	4 (0.1ha)
	Grassland	3.5ha
	Scrub	1.4ha
	Log Piles	8
	Artificial Hibernacula	8
Northern Landscape Receptor Site (30.5ha)	Ponds	22 (0.59ha)
	Grassland	23.71ha
	Scrub and Trees	6.2ha
	Log Piles	22
	Artificial Hibernacula	22
Stanford Wharf Nature Reserve Habitat Enhancement Area (10ha)	Ponds	2 (0.1ha)
	Grassland/Brownfield	9.9ha
	Woodland edge	500m
	Log Piles	2
	Hibernacula	2
Access Road Receptor Site (1.5ha)	Ponds	3 (0.1ha)
	Grassland	1.4ha
	Log piles	5
	Hibernacula	5
Off Site Rail Bend Enhancements (2.08ha)	Scrub	2.08ha
	Log Piles	6
	Hibernacula	6

Management and Maintenance of Aquatic and Terrestrial Habitats

The management and maintenance measures set out below shall be implemented in the off-site receptor sites and habitat enhancement areas where applicable according to Table A2.1. Habitat management measures for the on-site habitat corridors shall be implemented.

Management and Maintenance of Aquatic Habitat

Management of water levels

- A2.2 The measures set out in Table A2.2 to control pond water levels shall be implemented.

Table A2.2: Management of water levels

Objective	Minimum summer water level for ponds shall not be below 50% of maximum planned depth.
Management	Ponds shall be topped up as necessary using mains water supply outlets currently available close to the ponds. Mains water is preferred since it is free from fish and fish eggs.
Monitoring	The water level in ponds shall be monitored annually in June.
Remedial Action	Top up water levels. Put liners into currently unlined ponds if necessary.

Removal of Excess Aquatic Vegetation

- A2.3 Aquatic vegetation shall not be removed from more than 60% of the pond area. The measures set out in Tables A2.3a to manage aquatic vegetation for a variety of pond types and Table A2.3b to manage aquatic vegetation within the on-site habitat corridor ditches shall be implemented.

Table A2.3a: Management of aquatic vegetation

Location	Habitat creation sites
Objective	10% to 50% open water
Management	Removal of excess vegetation shall take place annually in January to give 10% to 50% open water. Vegetation shall be search for newts, placed on the pond edge for 1-2 days and then removed from the vicinity of the pond.
Monitoring	The percentage cover of aquatic vegetation in ponds shall be recorded annually in June.
Remedial Action	If vegetation is excessive, it shall be removed to give 35% to 60% open water. If vegetation is insufficient appropriate aquatic species shall be planted.

Table A2.3b: Management of aquatic vegetation

Location	On site habitat corridor ditches
Objective	10% to 25% open water
Management	Removal of excess vegetation shall take place annually in January to give 10% to 25% open water. Vegetation shall be searched for newts, placed on the ditch edge for 1-2 days and then removed from the vicinity of the pond.
Monitoring	The percentage cover of aquatic vegetation in ditches shall be recorded annually in June.
Remedial Action	If vegetation is excessive, it shall be removed to give 35% open water. If vegetation is insufficient appropriate aquatic species shall be planted.

Removal of Excess Marginal Vegetation

- A2.4 The measures set out in Table A2.4a to manage marginal vegetation for different pond types and the measures in Table A2.4b to manage marginal vegetation within the on-site habitat corridor ditches shall be implemented.

Table A2.4a: Management of marginal vegetation

Location	Habitat creation sites
Objective	Unmanaged marginal vegetation over 25% to 50% of pond margin. Managed marginal vegetation over 50% to 75% of pond margin. No encroachment of marginal vegetation beyond 3 metres inward of plotted or original pond edge.
Management	Marginal vegetation shall be cut and removed annually in January for 50% to 75% of the pond margin. Planting of marginal vegetation shall take place if insufficient establishment has been achieved three years after construction.
Monitoring	Record species diversity and % encroachment
Remedial Action	Cutting and removal of marginal vegetation

Table A2.4b: Management of marginal vegetation

Location	On site habitat corridor ditches
Objective	Maintain marginal vegetation and a 2 metre strip at the top of the bank with optimal cover to benefit water voles and GCN.
Management	An annual cut and rake shall take place in September and October.
	Monitor status of vegetation annually in June.
Remedial Action	Alteration of management regime.

Invasive Non-Native Plant Species

- A2.5 The measures set out in Table A2.5 to manage invasive non-native plant species in all pond types at all habitat creation sites and within the on-site habitat corridor ditches shall be implemented.

Table A2.5: Management of invasive non-native plant species

Location	All Pond types at all habitat creation sites and on site habitat corridor ditches
Objective	0% non-native plant species
Management	If detected, non-native plant species shall be removed from ponds as soon as possible. The main invasive species likely to be encountered are Australian swamp stonecrop (<i>Crassula helmsii</i>), parrot's feather (<i>Myriophyllum aquaticum</i>) and floating pennywort (<i>Hydrocotyle ranunculoides</i>). The removed vegetation shall be searched for newts, placed on pond/ditch edge for 1-2 days and then removed from the vicinity of the pond or ditch.
Monitoring	Monitoring shall take place annually in June for the presence of invasive non-native plant species.
Remedial Action	Immediate removal of non-native species.

Shading Scrub

- A2.6 The measures set out in Table A2.6 to manage shading scrub in all pond types at all habitat creation sites and within the on-site habitat corridor ditches shall be implemented.

Table A2.6: Management of shading scrub

Location	All Pond types at all habitat creation sites and on site habitat corridor ditches.
Objective	0% to 25% scrub shade
Management	Removal of scrub around pond/ditch margins to 25% or less in January each year shall take place.
Monitoring	The amount of shading scrub in ponds shall be monitored annually in June.
Remedial Action	Scrub shall be removed if shading is more than 25% of the pond/ditch margin.

Removal of Fish

- A2.7 The measures set out in Table A2.7 to manage fish in all pond types at all habitat creation sites shall be implemented.

Table A2.7: Management of fish

Location	All Pond types at all habitat creation sites
Objective	Absence of fish
Management	Ponds shall be checked for the continued hydrological isolation of water bodies and for potential sources of fish colonisation.

Monitoring	Monitoring for the presence of fish shall be carried out annually in June. Monitoring shall be carried out by visual search of the shallow pond margins and by netting.
Remedial Action	If fish are found to be present then action shall be taken to remove them. Temporary draining and drying of ponds during winter months. Subject to approval by the EAG, it is proposed that pond draining and drying shall only be carried out if the presence of fish has been confirmed.

Accumulation of Silt

- A2.8 The measures set out in Table A2.8 to manage silt in all pond types at all habitat creation sites and within the on-site habitat corridor ditches shall be implemented.

Table A2.8: Silt Management

Location	All Pond types at all habitat creation sites and on site habitat corridor ditches.
Objective	Sediment layer no greater than 0.5 metres above original pond/ditch base.
Management	Vegetation (including roots) shall be removed from ponds as described in Table 3a, 3b, 4a and 4b or the remedial actions shall be reverted to.
Monitoring	Monitor silt depth annually in June
Remedial Action	Excavation of the existing pond/ditch or the creation of a new neighbouring pond if possible

Control of Pollution

- A2.9 The measures set out in Table A2.9 to manage pollution in all pond types at all habitat creation sites and within the on-site habitat corridor ditches shall be implemented.

Table A2.9: Pollution Management

Location	All Pond types at all habitat creation sites and on site habitat corridor ditches.
Objective	Absence of pollution
Management	Check for pollution sources and stop if possible.
Monitoring	The monitoring for the presence of obvious signs of pollution shall take place annually in June. pH and salinity levels shall be recorded.
Remedial Action	Terminate or divert pollution at source.

Management and Maintenance of Terrestrial Habitat

Grassland Habitat

A2.10 The measures set out in Table A2.10a-A2.10e to manage grassland in the receptor sites and habitat enhancement areas shall be implemented. The measures set out in Table A2.10f to manage grassland in the onsite habitat corridors shall be implemented.

Table A2.10a: Grassland Management

Location	Northern Triangle East receptor site, Access Road receptor site, Great Garlands Farm Elbow receptor site and Northern Triangle West receptor site
Objective	Rank coarse grassland terrestrial habitat coverage over minimum 65% of site.
Management	The area shall be cut no more frequently than once every three years. Cutting shall be carried out by machine in the late summer to minimum of 100mm and raked.
Monitoring	The grassland shall be monitored annually in June and during GCN survey visits in April/May. Sward height and scrub invasion shall be recorded.
Remedial Action	Removal of natural scrub regeneration to <10% coverage in grassland area.

Table A2.10b: Grassland Management

Location	Northern Landscape receptor site main grassland areas, Great Garlands Farm Elbow Habitat Enhancement Area
Objective	Tussocky grassland with sward height in excess of 100mm over minimum 75% of site.
Management	The area shall be cut annually or cattle-grazed at low stocking density (see table A3.11 for stock density)
Monitoring	The grassland shall be monitored annually in June and during GCN survey visits in April/May by an ecologist. Sward height and scrub invasion shall be recorded. Sward height shall be measured at least once per month by an ecologist if managed by grazing.
Remedial Action	If sward height is less than 100mm over more than 25% of the area then stocking density shall be reduced. Removal of natural scrub regeneration to <10% coverage in the grassland area.

Table A2.10c: Grassland Management

Location	Stanford Wharf Nature Reserve Habitat Enhancement Area
Objective	Hay meadow coverage at least 80% of the site.
Management	The hay meadow (covering at least 80% of the site) shall be cut annually in late summer. Cutting shall be by machine and no lower than 100mm. Cuttings shall be raked and piled within the site.
Monitoring	The hay meadow shall be monitored annually in June. Sward height and scrub invasion shall be recorded.
Remedial Action	Annual cuts shall cease if the habitat created is deemed to be unsuitable for newts. Removal of natural scrub regeneration to <10% coverage in the grassland area.

Table A2.10d: Grassland Management

Location	Receptor sites grassland areas within pond stock fences.
Objective	Rank coarse grassland terrestrial habitat coverage over 100% of area within fences not occupied by hibernacula and log piles
Management	Grassland shall not be cut. Scrub shall be removed if causing die back of grass.
Monitoring	The grassland area shall be monitored annually in June and during GCN survey visits in April/May. Sward height and scrub invasion shall be recorded.
Remedial Action	Scrub shall be removed if shading causes die back of grassland or causes pond shading (refer to Table 3.6).

Table A2.10e: Grassland Management

Location	Stanford Warren and Marshes SINC
Objective	Maintain existing suitable terrestrial habitat for great crested newts.
Management	Minimal intervention management.
Monitoring	Monitored annually in June. Sward height and scrub invasion shall be recorded.
Remedial Action	If habitats are found to be unsuitable for great crested newts, Thurrock Borough Council shall be informed and appropriate management shall be prescribed and implemented.

Table A2.10f: Grassland Management

Location	Onsite habitat corridors
Objective	Hay meadow along habitat corridor verges
Management	Annual cut in late summer by machine no lower than 100mm. Cuttings shall be raked and removed.
Monitoring	Monitored annually in June. Sward height and scrub invasion shall be recorded.
Remedial Action	Annual cuts shall be ceased if habitat created is deemed to be unsuitable for newts.

Table A2.11: Example of maximum stock density for different durations of cattle grazing.

Grazing duration (days per year)	75	100	150	300
No. animals per hectare	1	0.75	0.5	0.25
No. animals on Northern Landscape receptor site (~25ha of grassland)	25	18	12	6
No. animals on Great Garlands Farm Elbow Habitat Enhancement Area (~4.4ha of grassland)	4	3	2	1

Note: Figures have been rounded to create whole numbers.

Dry Ditch Landscape Features

A2.11 The measures set out in Table A2.12 to manage dry ditch features that have been built between the ponds on the Northern Triangle East receptor site shall be implemented.

Table A2.12: Management of dry ditch features

Location	Northern Triangle East
Objective	Linear habitat of rank coarse grassland with up to 25% natural scrub regeneration forming habitat corridors linking ponds.
Management	The grass shall not be cut and natural scrub regeneration in excess of 25% area coverage shall be removed.

Monitoring	Monitoring shall take place annually in June and the percentage of scrub cover shall be recorded.
Remedial Action	Scrub removal

Scrub

A2.12 The measures set out in Table A2.13 to manage planted scrub areas shall be implemented.

Table A2.13: Management of planted scrub areas

Location	All areas of planted scrub
Objective	Maintain scrub cover over designated areas (20% of GGFE, NTE & NTW, 7% of the NLRs as part of the structural landscape zone 1A & 1B and 2.08ha on the off site rail bend) with understorey of high value as terrestrial habitat for newts.
Management	No management of the scrub vegetation shall take place in the first five years. If necessary, weed growth at the base of young plants shall be cut by strimming to reduce competition. After five years scrub areas shall be assessed and following assessment, management shall be implemented to improve the value of these areas for the species. Management at this stage may include coppicing, piling of coppice brush and additional log piles.
Monitoring	Monitoring shall take place annually in June. Any loss (%) of planted scrub shall be mapped and recorded.
Remedial Action	Replacement of dead scrub planting. Enhancement of understorey layer with deadwood.

Log Piles

A2.13 The measures set out in Table A2.14 to manage log piles at all receptor and habitat enhancement areas shall be implemented.

Table A2.14: Management of log piles

Location	All receptor and habitat enhancement areas
Objective	Partially rotted, intact, log piles.
Management	The log piles shall be replaced or additional logs deposited to maintain the pile at a minimum of 75% of the original dimensions.
Monitoring	Monitoring shall take place annually in June.

Remedial Action	Reconstruction or replacement.
------------------------	--------------------------------

Artificial Hibernacula

A2.14 The measures set out in Table A2.15 to manage artificial hibernacula shall be implemented.

Table A2.15: Management of artificial hibernacula

Location	All receptor and habitat enhancement areas
Objective	Intact stone piles of no less than 90% of original dimension.
Management	The artificial hibernacula shall be managed by replacing or depositing additional stones to maintain the original dimensions.
Monitoring	To be checked in April, June and September, increased from a single visit to account for potential trampling when stock fencing removed from some ponds.
Remedial Action	Replacement or reconstruction.

**Appendix 3:
EAG Constitution**

Appendix 3– EAG Constitution

Environmental Advisory Group Constitution

1. Formation and Operation of the Advisory Group
 - 1.1 The Environmental Advisory Group (**EAG**) (formerly known as the Ecological Advisory Group) was established in 2008 by London Gateway Park Development Ltd (**LGPDL**).
 - 1.2 The EAG Committee (**Committee**), consisting of DP World London Gateway staff, was established by London Gateway Park Development Ltd for the purpose of implementing this constitution and the roles described therein.
 - 1.3 The EAG consists of up to two nominated representatives (or their delegates) of each Party, set out in Schedule 1 (together the **Parties**) as notified by each Party to all the other Parties from time to time in writing. Other representatives from statutory and non-statutory groups may be invited to attend the EAG from time to time but will not have voting rights.
 - 1.4 Each Party shall have one vote whether it nominates one or two representatives, and may vote by proxy.
 - 1.5 The representatives (or delegates) of each Party may be accompanied by one or more additional representatives upon the EAG's approval in each case.
 - 1.6 The EAG will be chaired by a representative of the EAG Committee and will;
 - 1.7 Meet periodically (at least once every 12 months). Meetings shall be convened by the Chairman with at least 20 working days prior written notice with an agenda. Any of the Parties may request the Chairman to call a meeting;
 - 1.8 Hold such meetings at a convenient location to be provided by the Committee; and
 - 1.9 Appoint a secretary who shall be responsible for sending draft minutes of each meeting to the Parties within 10 working days of the meeting. The Committee shall provide the secretarial services unless otherwise agreed.

One representative of all Parties shall sign the minutes within 20 working days (or as agreed) of their receipt. Any Party wishing to propose amendments to such draft minutes shall notify the Parties within 20 working days of receipt. Comments by any Party on proposed amendments shall be made within 10 working days of receipt. If after 10 working days no proposed amendments have been notified, the minutes will be taken as agreed and will be duly signed; otherwise agreement of the minutes will be subject to discussion between the Parties.

2. Expenses

- 2.1 The administrative expenses of the EAG (including office and secretarial expenses) shall be borne by the Committee but the ordinary expenses of individual representatives or delegates in attending the meetings of the EAG shall be borne in each case by the Party nominating them as being a part of the exercise of their respective statutory duties.

3. Terms of Reference

- 3.1 The EAG shall:

- 3.2 Advise the Committee on environmental management issues arising out of the development implemented under the London Gateway Local Development Order (**LDO**).

- 3.3 Review environmental monitoring and other information collected by London Gateway Services Limited (**LGSL**) for the purpose of the implementation of the LDO and conformity with associated existing and new Environmental Permits and Licences;

- 3.4 Consult relevant parties (such to be agreed by the EAG) and consider if it sees fit any relevant representations made by them;

- 3.5 Consider any relevant questions raised by the Parties in connection with operation of the LDO.

- 3.6 Make suggestions to the Committee on any relevant matter connected with the administration of the Ecological Mitigation and Management Plan (**EMMP**) or this constitution which could further the interests of achieving the objectives set out and agreed in the EMMP or this constitution.

- 3.7 Shall stimulate interest and the voluntary engagement of the occupiers of the Logistics Park as the case may be in the achievements of the EMMP, Code of Construction Practice, Design Code or this constitution. The EAG acting in concert, may invite representatives from relevant public organisations or user groups, to attend a part of meetings in the context of any relevant agenda item. Such strangers will not be entitled to vote or to take part in any formal part of the meeting and will be required to leave the meeting during any confidential discussion or any discussion involving financial matters or management of the EAG;

- 3.8 Produce and make publicly available an Annual Report which will comprise in the form of an Executive Summary a review of the progress to date in respect of the LDO or this constitution;

- 3.9 In light of the review of the progress mentioned above to make recommendations to the Committee for any modifications considered necessary by the EAG to ensure the measures in the EMMP or this constitution are met.

4. Decisions and Dead-Lock

- 4.1 Decisions of the EAG (including recommendations to the Committee and EAG's annual report) require unanimous consent. No approval, consent, or agreement required from or by any party under this constitution shall be unreasonably withheld or delayed. If any issue is unresolved after formal consideration by the EAG, each Party may by written notice to the other Parties, who shall in good faith negotiate to resolve that issue within 30 (thirty) calendar days, or for such other period as the EAG may agree, subject to paragraph 4.2 of this constitution, refer the dispute to binding arbitration pursuant to paragraph 10 of this constitution. In matters of scientific opinion any Party may make use of an Expert to aid in the resolution of dead-lock.
- 4.2 If the Committee exercises its vote in opposition to all other voting parties of the EAG then the Parties shall (after having followed the procedure in paragraph 4.1 above) follow the procedure in this paragraph 4.2. The Committee's decision to so vote will be reviewed by its Lawyer within 28 working days of the failure by the senior officers to reach agreement, such review to be circulated to voting members of the EAG. Recipients of the review will have 14 days in which to respond and such response will set out whether or not that member intends to refer the matter to arbitration pursuant to paragraph 10 below against the Committee and if so on what grounds. The Committee shall respond to any intention of a member to refer the matter to arbitration within a further 28 days. Thereafter the Party intending to take such action shall either take such action or shall either confirm to the EAG that its concerns have been satisfied by the Committee or that it requires further time in which to consider the matter.

5. Annual Meeting and Annual Report

- 5.1 The Committee will constitute a formal meeting of the parties (plus others) which shall report once annually as to progress made against the Terms of Reference in this constitution, and the LDO, including monitoring outcomes required in the Code of Construction Practice, Design Code and EMMP. Annual Reports will be published on the London Gateway website and submitted to Thurrock Borough Council for the duration of the life of the EAG. The Committee agrees to consider properly the advice of the EAG of which it is a party and to proceed according to that advice where that advice is based on sound scientific knowledge and judgement and where it is so agreed by all parties to the EAG acting unanimously (or subject to the dispute resolution procedure as set out at paragraph 9 below) provided that all such required actions of the Committee are lawful for it, and fall within its statutory remit and are within its control.

6. Informal dialogue

- 6.1 In addition to formal EAG meetings, the Parties intend, but are not required so to do, to maintain an informal, interactive dialogue throughout the course of the implementation of the LDO.

7. Dissolution of the Advisory Group

7.1 The EAG shall continue in operation for the duration of the LDO and for any longer period as needed by a monitoring regime under the EMMP. Thereafter it may only be dissolved irrevocably by unanimous agreement of the Parties.

8. Statutory Remit of the Parties

8.1 No Party will exceed its statutory duties when considering issues before it as the EAG. The EAG will inform the relevant statutory remit of each party but will not take the place of statutory duties of the relevant parties (if any).

8.2 Nothing in this constitution shall be taken to prejudice or otherwise fetter the exercise by Natural England or the Environment Agency of their respective statutory functions.

9. Arbitration

9.1 Subject to paragraph 4 of this EAG constitution, any dispute or difference arising out of or in connection with this EAG constitution (including without limitation any question regarding its existence, validity, interpretation, performance or termination) shall be referred to and finally resolved by arbitration under the Rules of the London Court of International Arbitration (“the Rules”), which Rules are deemed to be incorporated by reference into this paragraph. It is agreed that:

9.2 The number of arbitrators shall be one;

9.3 The appointing authority for the purpose of the Rules shall be the London Court of International Arbitration;

9.4 The seat, or legal place, of arbitration shall be London;

9.5 The language to be used in the arbitration shall be English;

9.6 The governing law of the agreement shall be the substantive law of England and Wales.

Schedule 1

The Parties to the EAG are:-

DP World;

Natural England (“NE”);

Environment Agency (“EA”); and

Thurrock Borough Council.

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 5: Prior Notification of Development Forms



January 2025

Development Management Team, Planning, Place Directorate, Thurrock Council, Civic Offices, New Road, Grays, Essex, RM17 6SL

London Gateway Logistics Park Local Development Order 2 (LGLPLDO2) Prior Notification of Development – PNF Form 1

For Use Classes B2 (general industry), B8 (storage or distribution), E(g)(i) (offices), E(g)(ii) (research and development), E(g)(iii) (industrial processes), Sui Generis (common user HGV fuelling and washing) and Park wide infrastructure

Purpose of this form

By submitting this form you are requesting confirmation as to whether the works you are proposing constitute permitted development under the London Gateway Logistics Park Local Development Order 2 (LGLPLDO2).

Following the consideration of your request, Thurrock Council will complete the notification section (Section 10) thereby certifying that the proposals are or are not permitted development. This will constitute the formal response as required by the Order. Development that is not permitted under the LGLPLDO2 may require the submission of a formal planning application.

All sections should be completed either electronically or in black ink.

Section 1 – Contact Details

1a. Applicant Name, Address and Contact Details.				
Title:		First name:		Surname:
Company name:				
Address:				
Telephone Number:				
Email				

1b. Agent Name, Address and Contact Details (if applicable).				
Title:		First name:		Surname:
Company name:				
Address:				
Telephone number:				
Email:				

Section 2 – The Development Proposal

2a. Description of development.		Office Use Only Compliant with the LGLPLDO2?
Type of development	Yes / No	
Erection of a building		
Extension of a building		
Alteration of a building		
Change of use		
Associated infrastructure or other development		
For proposals other than Park wide infrastructure		
Proposed Use Class	Yes / No	
B8 (storage and distribution)		
B2 (general industry)		
E(g) (i) (offices)		
E(g) (ii) (research and development)		
E(g) (iii) (industrial processes)		
Sui Generis (Common user HGV fuelling and washing facilities)		
For Change of Use Only		
(NB. Change of use to or from development within Use Class B2 or B8 to Use Class E(b), E(d), E(f) or F2(a) is not permitted)		
Existing Use Class	Yes / No	
B8 (storage and distribution)		
B2 (general industry)		
E(g) (i) (offices)		
E(g) (ii) (research and development)		
E(g) (iii) (industrial processes)		
E(b) (food and drink)		
E(d) (gym)		
E(f) (creche/day nursery)		
F2(a) (shops)		

For Associated Infrastructure (including Park wide infrastructure)		Office Use Only Compliant with the LGLPLDO2?																		
<table border="1"> <thead> <tr> <th>Associated Infrastructure</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Access Road(s)</td> <td></td> </tr> <tr> <td>Plot based vehicle parking and servicing</td> <td></td> </tr> <tr> <td>Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting</td> <td></td> </tr> <tr> <td>Foul and surface water drainage infrastructure</td> <td></td> </tr> <tr> <td>Utilities infrastructure</td> <td></td> </tr> <tr> <td>Vehicle refuelling and washing facilities</td> <td></td> </tr> <tr> <td>CCTV cameras and associated masts</td> <td></td> </tr> <tr> <td>Lamp posts and any other lighting masts or infrastructure</td> <td></td> </tr> </tbody> </table>		Associated Infrastructure	Yes / No	Access Road(s)		Plot based vehicle parking and servicing		Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting		Foul and surface water drainage infrastructure		Utilities infrastructure		Vehicle refuelling and washing facilities		CCTV cameras and associated masts		Lamp posts and any other lighting masts or infrastructure		
Associated Infrastructure	Yes / No																			
Access Road(s)																				
Plot based vehicle parking and servicing																				
Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting																				
Foul and surface water drainage infrastructure																				
Utilities infrastructure																				
Vehicle refuelling and washing facilities																				
CCTV cameras and associated masts																				
Lamp posts and any other lighting masts or infrastructure																				

2b. Description of Development	Office Use Only Compliant with the LGLPLDO2?
<p>Please describe the proposed development.</p>	

2c. Location of development	Office Use Only Compliant with the LGLPLDO2?
<p>Please include a plan showing the location of the proposed development outlined in red in the context of the Logistics Park.</p>	

Section 3 – Design Details

Please complete this section if buildings or other structures are to be erected on the site.

<p>3a. Height of the building or structure. Development must not exceed the maximum height for the zone/plot in which the building or structure is located (as shown on the Height Zoning Plan in the Design Code).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please state the maximum height (in metres) of the building when measured from the finished floor level.</p> <p>Height of building(s): m (AOD)</p> <p>Please state the height of any other structures to be erected:</p> <p>Type of structure..... Height m</p> <p>Type of structure..... Heightm</p> <p>Type of structure..... Heightm</p> <p>Type of structure..... Height m</p> <p>Type of structure..... Heightm</p>	

<p>3b. Building Size. The maximum gross internal floorspace shall not exceed 150,000m² and the minimum gross internal floorspace shall not be less than 1,000m² (unless for ancillary use) (see paragraphs A2.1 – A2.4 of the Design Code)</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>																														
<p>Please provide details of proposed floor space (ancillary floorspace to be recorded under primary use)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 25%;">Use Class</th> <th style="width: 35%;">Existing GIA Floorspace (sqm)</th> <th style="width: 40%;">Proposed GIA Floorspace (sqm)</th> </tr> </thead> <tbody> <tr><td>B2</td><td></td><td></td></tr> <tr><td>B8*</td><td></td><td></td></tr> <tr><td>E(g) (i)</td><td></td><td></td></tr> <tr><td>E(g) (ii)</td><td></td><td></td></tr> <tr><td>E(g) (iii)</td><td></td><td></td></tr> <tr><td>E(b)</td><td></td><td>N/A - See PNF Form 2</td></tr> <tr><td>E(d)</td><td></td><td>N/A - See PNF Form 2</td></tr> <tr><td>E(f)</td><td></td><td>N/A - See PNF Form 2</td></tr> <tr><td>F2 (a)</td><td></td><td>N/A - See PNF Form 2</td></tr> </tbody> </table> <p style="margin-top: 10px;">* Is the building to be occupied as a High Intensity Parcel Delivery Service?</p> <p>Yes/No</p>	Use Class	Existing GIA Floorspace (sqm)	Proposed GIA Floorspace (sqm)	B2			B8*			E(g) (i)			E(g) (ii)			E(g) (iii)			E(b)		N/A - See PNF Form 2	E(d)		N/A - See PNF Form 2	E(f)		N/A - See PNF Form 2	F2 (a)		N/A - See PNF Form 2	
Use Class	Existing GIA Floorspace (sqm)	Proposed GIA Floorspace (sqm)																													
B2																															
B8*																															
E(g) (i)																															
E(g) (ii)																															
E(g) (iii)																															
E(b)		N/A - See PNF Form 2																													
E(d)		N/A - See PNF Form 2																													
E(f)		N/A - See PNF Form 2																													
F2 (a)		N/A - See PNF Form 2																													

<p>3c. External storage (applies to all uses except E(g)(i)) shall not exceed 2% of plot or 2,000m² whichever is the lesser, other than in 'External Storage Exception Zones' and shall not exceed 6m in height and shall be within fenced areas not exceeding 3m.</p> <ul style="list-style-type: none"> - External storage within the 'Southern External Storage Exception Zone' shall have a maximum plot coverage of 20% or 15,500 m² whichever is the lesser and shall not exceed 6m in height and shall be within fenced areas not exceeding 3m in height. - External storage within the 'Northern External Storage Exception Zone' shall have a maximum plot coverage of 25% or 7,500 m² whichever is the lesser and shall not exceed 3m in height and shall be within fenced areas not exceeding 3m in height. <p>External storage shall not be provided within infrastructure corridors or building service yards fronting the primary site access road except where plots do not benefit from a rear service yard or it is not possible to locate the external storage to the rear of the building. In these cases, the external storage fronting the primary infrastructure corridor shall be situated behind a 10m wide landscaped zone and, where fronting a secondary infrastructure corridor, behind a 5m wide landscape zone (see paragraphs D1 of Design Code).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
--	--

<p>Is the site located in the 'External Storage Exception Zone'? Yes / No</p> <p>If yes, please confirm if the site is within the Northern or Southern External Storage Exception Zone.</p> <p>Northern/Southern (delete as appropriate)</p> <p>Is external storage to be provided? Yes / No</p> <p>If yes, please specify the size of the area (m²) and the plot coverage as a percentage of the total plot area.</p> <p>Area m² Plot coverage..... %</p> <p>Note - Please include a plan showing the location of the proposed external storage area within the plot. If not located in a rear storage yard, please provide details of 10m wide landscaped zone/ 5m wide landscaped zone.</p>	
--	--

<p>3d. On plot vehicle fuelling facilities (applies to all uses except E(g)(i)) shall not exceed a maximum plot coverage of 3% or 3,000sq.m whichever is the lesser</p> <p>On plot vehicle washing facilities (applies to all uses except E(g)(i)) shall not exceed a maximum plot coverage of 1% or 1,000sq.m whichever is the lesser. (see paragraphs B2.6-B2.8 of Design Code)</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Are on plot vehicle fuelling facilities or wash facilities to be provided Yes / No</p> <p>If yes, please specify the size of the area (m²) and the plot coverage as a percentage of the total plot area.</p> <p>Vehicle fuelling area m² Plot coverage... %</p> <p>Vehicle washing facilities area m² Plot coverage... %</p> <p>Note - Please include a plan showing the location of the proposed facilities within the plot.</p>	

<p>3e. Common User HGV Refuelling and Washing Facilities Fuelling pumps shall be covered with a canopy with a minimum clear height of 6m and a maximum height to the top of the canopy of 9m. Wash facilities must be covered with a maximum height to the top of the enclosure of 7m. (See section P8 of Design Code)</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Are Common User HGV Refuelling or Washing Facilities to be provided Yes / No</p> <p>If yes, please specify the size of the area (m²) below:</p> <p>HGV refuelling aream² HGV washing facilities area m²</p> <p>Please state the height of structures/enclosures to be erected:</p> <p>Type of structure..... Height m Type of structure..... Heightm</p> <p>Note - Please include a plan showing the location of the proposed facilities within the Logistics Park.</p>	

<p>3f. Colours and Materials (including cladding) The buildings and structures must be constructed with external finishes in the materials and colours listed in section A4 and A7.2 of the Design Code (section F4 for E(g)(i)).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>																		
<p>Please provide a description of the proposed materials and finishes to be used.</p> <table border="1"> <thead> <tr> <th></th> <th>Material(s)</th> <th>Colours</th> </tr> </thead> <tbody> <tr> <td>External Walls</td> <td></td> <td></td> </tr> <tr> <td>Roof</td> <td></td> <td></td> </tr> <tr> <td>Windows</td> <td></td> <td></td> </tr> <tr> <td>Vehicle Access & Hardstanding</td> <td></td> <td></td> </tr> <tr> <td>Other (Please Specify)</td> <td></td> <td></td> </tr> </tbody> </table>		Material(s)	Colours	External Walls			Roof			Windows			Vehicle Access & Hardstanding			Other (Please Specify)			
	Material(s)	Colours																	
External Walls																			
Roof																			
Windows																			
Vehicle Access & Hardstanding																			
Other (Please Specify)																			

<p>3g. Roofscape - see paragraph A7.1 of Design Code. This applies to all uses except offices (E(g)(i)) and common user HGV fuelling and washing (sui generis).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Roof planes set at a minimum pitch of 3 degrees and maximum pitch of 10 degrees shall generally be specified with roof lights at 15% where operational requirements permit.</p> <p>Please specify pitch of roof plane</p> <p>Please specify % of roof lights</p>	

<p>3h. Plot Boundary Treatments. See paragraph C2 (paragraph I3 for E(g)(i)) of the Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>						
<p>Please provide the following boundary treatment details:</p> <table border="1"> <thead> <tr> <th>Means of enclosure / boundaries</th> <th>Material(s)</th> <th>Height (m)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Means of enclosure / boundaries	Material(s)	Height (m)				
Means of enclosure / boundaries	Material(s)	Height (m)					

<p>3i. Landscaping, lighting and street furniture -See paragraphs B8, C1 – C7 (see sections H and I for E(g)(i) and P8.10 for HGV Fuelling and Washing Facilities) of the Design Code.</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please provide a plan showing details of the following (as applicable):</p> <ul style="list-style-type: none"> - Soft landscaping and planting plan (including species selection) - Hard landscaping details and materials - Location of lighting - Location of street furniture <p>Please provide the detailed specification for lighting and street furniture. This shall include a drawing showing isolux contours</p>	

Section 4 – Sustainable Design Standards

For proposals involving the erection of new buildings only

4a. Buildings must meet the sustainable design standards set out in section A10 (section F9 for E(g)(i)) of the Design Code	Office Use Only Compliant with the LGLPLDO2?
<p>Please state the proportion (%) of predicted energy requirements from all sources of decentralised and renewable or low-carbon energy?</p> <p>_____ %</p> <p>Please state how this will be achieved.</p> <p>If this proportion does not meet the standards in paragraph A10.2 of the Design Code then please explain why this is not feasible or viable.</p>	
<p>Do the buildings achieve BREEAM Outstanding (in addition to national standards for zero carbon)? Yes/No?</p> <p>If BREEAM Outstanding and/or national standards for zero carbon cannot be achieved please explain why.</p>	

Section 5 - Construction Details

For proposals involving the erection of new buildings only

<p>5a. HSE Consultation Zone - see paragraphs A1.2– A1.5 of the Design Code (paragraph F1.5-F1.7 for E(g)(i))</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>																
<p>Are any buildings proposed to be located within the HSE consultation zone as shown on Figure 2 of the Design Code? Yes / No</p> <p>If yes, please specify consultation zone(s):</p> <table border="1"> <tr> <td>Inner Zone</td> <td>Yes/No</td> </tr> <tr> <td>Middle Zone</td> <td>Yes/No</td> </tr> <tr> <td>Outer Zone</td> <td>Yes/No</td> </tr> <tr> <td>Envelope of Safeguarding Distances SD3</td> <td>Yes/No</td> </tr> </table> <p>Inner Zone: If the development is within the HSE inner zone please specify the maximum number of occupants that will be present in each building at any one time and the number of occupied storeys:</p> <p>No. of occupants</p> <p>No. of occupied storeys</p> <p>If other ancillary development is to be located with the HSE sensitivity zone please specify the use.</p> <p>Middle or Outer Zone: If the development is within the HSE middle or outer zone, please confirm that it is Use Class B8 Yes/No</p> <p>Envelope of Safeguarding Distances SD3: If the building is within the Envelope of safeguarding Distances SD3, please confirm whether it exceeds any of the following thresholds:</p> <table border="1"> <tr> <td>A building more than three storeys above ground or 12m in height constructed with continuous non-load bearing curtain walling with individual glazed or frangible panels larger than 1.5 m² and extending over more than 50% or 120 m² of the surface of any elevation</td> <td>Yes/No</td> </tr> <tr> <td>A building more than three storeys above ground or 12 m in height with solid walls and individual glass panes or frangible panels larger than 1.5 m² and extending over at least 50% of any elevation.</td> <td>Yes/No</td> </tr> <tr> <td>A building more than 400 m² plan area with continuous or individual glazing panes larger than 1.5 m² extending over at least 50% or 120 m² of the plan area.</td> <td>Yes/No</td> </tr> <tr> <td>Any other structure that, in consequence of an event such as an explosion, may be susceptible to disproportionate damage such as progressive collapse.</td> <td>Yes/No</td> </tr> </table>	Inner Zone	Yes/No	Middle Zone	Yes/No	Outer Zone	Yes/No	Envelope of Safeguarding Distances SD3	Yes/No	A building more than three storeys above ground or 12m in height constructed with continuous non-load bearing curtain walling with individual glazed or frangible panels larger than 1.5 m ² and extending over more than 50% or 120 m ² of the surface of any elevation	Yes/No	A building more than three storeys above ground or 12 m in height with solid walls and individual glass panes or frangible panels larger than 1.5 m ² and extending over at least 50% of any elevation.	Yes/No	A building more than 400 m ² plan area with continuous or individual glazing panes larger than 1.5 m ² extending over at least 50% or 120 m ² of the plan area.	Yes/No	Any other structure that, in consequence of an event such as an explosion, may be susceptible to disproportionate damage such as progressive collapse.	Yes/No	
Inner Zone	Yes/No																
Middle Zone	Yes/No																
Outer Zone	Yes/No																
Envelope of Safeguarding Distances SD3	Yes/No																
A building more than three storeys above ground or 12m in height constructed with continuous non-load bearing curtain walling with individual glazed or frangible panels larger than 1.5 m ² and extending over more than 50% or 120 m ² of the surface of any elevation	Yes/No																
A building more than three storeys above ground or 12 m in height with solid walls and individual glass panes or frangible panels larger than 1.5 m ² and extending over at least 50% of any elevation.	Yes/No																
A building more than 400 m ² plan area with continuous or individual glazing panes larger than 1.5 m ² extending over at least 50% or 120 m ² of the plan area.	Yes/No																
Any other structure that, in consequence of an event such as an explosion, may be susceptible to disproportionate damage such as progressive collapse.	Yes/No																

<p>5b. The piling method - must be carried out in accordance with section D.7 of the Code of Construction Practice</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>If piling is required, please specify the piling design.</p> <p>Please provide details on the timing of works (start month and duration).</p>	

<p>5c. Plot Foul and Surface Water Drainage - see section E of the Design Code (section K for Use Class E(g)(i)) & Flood Warning and Evacuation Plans</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please specify whether the development is located in the northern or southern drainage zone? Northern / Southern (delete as appropriate)</p>	
<p>Foul Drainage</p> <p>Please provide detail of the Waste Water Treatment Plant and foul water drainage system.</p> <p>Please provide plans and drawings showing the scheme submitted to the Environment Agency in applying for an Environmental Permit.</p>	
<p>Surface Water Drainage</p> <p>Please provide details of how surface water will be disposed of:</p> <p>Please provide plans and cross-sectional drawings of any swales, attenuation ponds and outfalls (if required).</p> <p>If box culverts are required, please provide plans and sections.</p> <p>Please provide details and plans of any temporary drainage system.</p> <p>Please confirm that plans of the surface water drainage infrastructure have been sent to the Local Lead Flood Authority (LLFA) for inclusion on the Council's Flood Risk Asset Register. Yes/No</p>	

Flood Warning and Evacuation Plan

Please enclose a site specific Flood Warning and Evacuation Plan to include an overview of flood risk on the site, the potential impact of a breach of flood defences and recommended actions to ensure the safety of occupants and users of the development.

Please state the maximum number of people likely to be present in the building at any one time.

5d. Archaeological Assessment (see section J of the Code of Construction Practice)

Office Use Only
Compliant with the LGLPLDO2?

Please enclose a copy of the written approval from Thurrock Council of the Scoping Opinion and, where required, the Archaeological Assessment and Scheme of Mitigation.

Section 6 – Remediation

A site specific risk-based ground condition assessment of the nature of the subsoils shall be submitted to and approved in writing by the Local Planning Authority before the submission of the Prior Notification Form. If specific risks to human health or groundwater are identified, then a scheme designed to deal with potential unremediated contamination must be approved in writing by the Local Planning Authority prior to submission of this Prior Notification Form.

6a. Remediation Strategy	Office Use Only Compliant with the LGLPLDO2?
Please enclose a copy of the written approval from Thurrock Council of the remediation strategy.	

Section 7 – Parking and Transport

7a. Parking spaces - must be in accordance with the standards set out in sections B3 – B5 of the Design Code (sections G3-G4 for E(g)(i)).				Office Use Only Compliant with the LGLPLDO2?
	Existing No. of spaces	Proposed No. of spaces	Bay dimensions (m)	
Articulated HGV				
Rigid HGV				
Van				
Car				
Cycle				
Powered two wheeled vehicle				
Blue Badge parking				

7b Electric Charging Points – 1 space must be provided for plots with 50 spaces or fewer. Plots with more than 50 spaces must include 2% of the total. Passive provision to be provided for all remaining spaces. See section B3 of Design Code (sections G3 for E(g)(i)).		Office Use Only Compliant with the LGLPLDO2?
Number of electric charging points % of total		

<p>7c. Loading, unloading and turning space – shall be in accordance with Freight Transport Association – Designing for Deliveries. See section B2 of the Design Code (G2 for E(g)(i))</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>								
<p>Please confirm space is in accordance with above standards: Yes/No</p> <p>Please complete the table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Area to be provided (m²)</th> </tr> </thead> <tbody> <tr> <td>Loading</td> <td></td> </tr> <tr> <td>Unloading</td> <td></td> </tr> <tr> <td>Service yard circulation area</td> <td></td> </tr> </tbody> </table> <p>Please identify all of the above areas on the site layout plan.</p> <p>Please also ensure HGV tracking plans are provided if a 20m pullout/ yard circulation zone cannot be provided.</p> <p>For use Class E(g)(i), please provide tracking plans for the largest vehicle likely to be required.</p>		Area to be provided (m ²)	Loading		Unloading		Service yard circulation area		
	Area to be provided (m ²)								
Loading									
Unloading									
Service yard circulation area									

<p>7d. Plot-by-Plot Rail Connection – see paragraph B9.1 of Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Is the plot within the Rail Safeguarding area? Yes/No</p> <p>If yes, please provide plans to demonstrate that sufficient space is provided to accommodate the rail sidings and loading/unloading facilities</p>	

<p>7e. Internal access roads, footpaths, cycleways and verges – see sections B7 and B1 – B7 of the Design Code (section G1-G6 or E(g)(i))</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please provide detailed plans and cross-sectional drawings showing the following details as appropriate.</p> <p>Width of road(s)</p> <p>Materials</p> <p>Landscaping</p> <p>Service corridors</p> <p>Drainage channel</p> <p>Width of footpath and verges</p> <p>Materials for cycle path</p> <p>Roundabouts and junctions</p>	

7f. Provision of cycle parking – must be provided in accordance with section B5 of the Design Code (section G4 for E(g)(i)).	Office Use Only Compliant with the LGLPLDO2?
Please provide a plan showing the location and design of the proposed cycle parking.	

Section 8 – Enclosures

Please include the following in your submission

8a. Plans / Drawings	Office Use Only Included Yes/ No
Location plan (scale 1:500 or 1:200)	
Site layout plan (scale 1: 500 or 1: 200):	
Elevations (scale 1:50 or 1:100)	
Existing and proposed layout/floor plans (scale 1: 50 or 1: 100):	
Existing and proposed elevation plans (scale 1: 50 or 1: 100)	
Roof plan (scale 1: 50 or 1: 100)	
Landscape plan (scale 1: 50 or 1: 100)	
Existing and Proposed site sections and finished floor and site levels (scale 1: 50 or 1: 100).	
Cross-section drawings of all roads, drainage channels and surface and foul water drainage systems (scale 1: 50 or 1: 100).	
Please list any other additional plans or drawings included in your submission.	

Section 9 – Declaration

I / We hereby give notice of my / our intention to carry out the above development, I also confirm my intention that, if it is confirmed that planning permission is not required as provided for by the London Gateway Logistics Park Local Development Order 2, I / we shall only carry out the proposed work in accordance with the details included on this form and at the associated scaled plans. I / We understand that any variation from these details may require re-assessment.

I / We confirm that any future occupier of a commercial building has been or will be informed of the obligation to submit an Occupier Travel Plan to the London Gateway Travel Plan Committee for verification prior to occupation of the commercial building. I / We confirm that, to the best of my / our knowledge, any facts stated are true and accurate and any opinions given are the genuine opinions of person(s) giving them.

Name:	
Signature:	
Date:	

Section 10 – Notification

Either 10a or 10b to be completed by Thurrock Council	
10a. Compliance with the LGLPLDO2 Thurrock Council considers that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2.	
Signature:	Date:
10b. Non-compliance with the LGLPLDO2 Thurrock Council does not consider that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2, for the reasons outlined below.	
Signature:	Date:

Informatives

Plans and Drawings

The site location plan / red-line site plan needs to clearly identify the site in question via a red-line drawn around the site area, needs to be drawn and printed to an identifiable scale, using recognised base maps (normally Ordnance Survey) and show the direction of North. It should also be clearly labelled and titled.

All other plans must be provided at the specified scale, unless otherwise agreed by the local; planning authority. The scale must be identified on all drawings along with a scale bar. Plans should also include a title, the date, drawing number, with revisions clearly identified and show the direction of north. Every plan based upon Ordnance survey maps must have the appropriate Ordnance Survey copyright notice.

Submitting the Prior Notification Form

Please submit the completed form and supporting/accompanying documentation electronically to:
Planning.applications@thurrock.gov.uk

Hard copies of any documents may be requested as necessary.

Notification Fee

Please review the LGLPLDO2 fee schedule to calculate the applicable notification fee for your proposal. Payment should be made by electronic transfer.

Time Period for a Response

Thurrock Council will acknowledge receipt of the form within **5 working days** and will process the application and complete the notification section of the form within **28 days** of receipt.

Other Consents

Please note that your development will still be subject to the normal requirements of any other consents or permissions required under other legislation (e.g. Building Control Regulations, Environment Agency Consents, Advertising Consent).

Contact Information

If you wish to discuss your proposal or have any queries regarding the form please contact the Development Management Team.

Tel No. **01375 652652**

Address. **Development Management Team,
Planning,
Place Directorate,
Thurrock Council,
Civic Offices,
New Road,
Grays,
Essex
RM17 6SL**

Development Management Team, Planning, Place Directorate, Thurrock Council, Civic Offices, New Road, Grays, Essex, RM17 6SL

London Gateway Logistics Park Local Development Order 2 (LGLPLDO2) Prior Notification of Development – PNF Form 2

For Use Classes E(b) (food and drink), E(d) (gym), E(f) (creche/day nursery), F2 (a) (shops), F2(c) (outdoor sports facilities)

Purpose of this form

By submitting this form you are requesting confirmation as to whether the works you are proposing constitute permitted development under the London Gateway Logistics Park Local Development Order 2 (LGLPLDO2).

Following the consideration of your request, Thurrock Council will complete the notification section (Section 10) thereby certifying that the proposals are or are not permitted development. This will constitute the formal response as required by the Order. Development that is not permitted under the LGLPLDO2 may require the submission of a formal planning application.

All sections should be completed either electronically or in black ink.

Section 1 – Contact Details

1a. Applicant Name, Address and Contact Details.					
Title:		First name:		Surname:	
Company name:					
Address:					
Telephone Number:					
Email					

1b. Agent Name, Address and Contact Details (if applicable).					
Title:		First name:		Surname:	
Company name:					
Address:					
Telephone number:					
Email:					

Section 2 – The Development Proposal

2a. Description of development.		Office Use Only Compliant with the LGLPLDO2?
Type of development	Yes / No	
Erection of a building		
Extension of a building		
Alteration of a building		
Change of use		
Provision of outdoor sports facilities		
Associated infrastructure		
For all proposals		
Proposed Use Class	Yes / No	
E (b) (food and drink)		
E (d) (gym)		
E (f) (creche/day nursery)		
F2 (a) (shops)		
F2 (c) (outdoor sports facilities)		
For Change of Use Only		
Existing Use Class	Yes / No	
E(g) (i) (offices)		
E(g) (ii) (research and development)		
E(g) (iii) (industrial processes)		
E (b) (food and drink)		
E (d) (gym)		
E (f) (creche/day nursery)		
F2 (a) (shops)		

2a. Description of development. (continued)		Office Use Only Compliant with the LGLPLDO2?																
<table border="1"> <thead> <tr> <th>Associated Infrastructure</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Access Road(s)</td> <td></td> </tr> <tr> <td>Plot based vehicle parking and servicing</td> <td></td> </tr> <tr> <td>Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting</td> <td></td> </tr> <tr> <td>Foul and surface water drainage infrastructure</td> <td></td> </tr> <tr> <td>Utilities infrastructure</td> <td></td> </tr> <tr> <td>CCTV cameras and associated masts</td> <td></td> </tr> <tr> <td>Lamp posts and any other lighting masts or infrastructure</td> <td></td> </tr> </tbody> </table>		Associated Infrastructure	Yes / No	Access Road(s)		Plot based vehicle parking and servicing		Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting		Foul and surface water drainage infrastructure		Utilities infrastructure		CCTV cameras and associated masts		Lamp posts and any other lighting masts or infrastructure		
Associated Infrastructure	Yes / No																	
Access Road(s)																		
Plot based vehicle parking and servicing																		
Hard and soft landscaping including fences, gates, security barriers, gatehouses, street lighting																		
Foul and surface water drainage infrastructure																		
Utilities infrastructure																		
CCTV cameras and associated masts																		
Lamp posts and any other lighting masts or infrastructure																		

2b. Description of Development	Office Use Only Compliant with the LGLPLDO2?
<p>Please describe the proposed development.</p>	

2c. Location of development Amenity uses shall be located together, ideally as part of a mixed use building, close to the main access to the Logistics Park or within a central part of the site (see paragraph F1.2 in Design Code)	Office Use Only Compliant with the LGLPLDO2?
Please include a plan showing the location of the proposed development outlined in red in the context of the Logistics Park.	

Section 3 – Design Details

Please complete this section if buildings or other structures are to be erected on the site.

<p>3a. Height of the building or structure. Development must not exceed the maximum height for the zone/plot in which the building or structure is located (as shown on the Height Zoning Plan in the Design Code). Buildings shall have the potential to be at least three storeys either on construction or in the future (see paragraph F3.1-F3.2 in the Design Code).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please state the maximum height (in metres) of the building when measured from the finished floor level.</p> <p>Height of building(s): m (AOD)</p> <p>Please state the number of storeys:</p> <p>Number of storeys: on construction</p> <p>If building is less than three storeys, please explain what measures have been incorporated into the design to accommodate additional storeys in the future.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Please state the height of any other structures to be erected:</p> <p>Type of structure..... Height m</p> <p>Type of structure..... Heightm</p> <p>Type of structure..... Heightm</p>	

<p>3b. Building Size. NB. The maximum gross internal floorspace for any single retail unit within Use Class F(2)(a) shall not exceed 280 sqm (see paragraphs F2.1 – F2.3 of the Design Code). To be completed for all uses except F2(c).</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>																							
<p>Please provide details of proposed floor space (ancillary office or retail floorspace to be recorded under primary use).</p>																								
<table border="1" style="width: 100%; border-collapse: collapse; margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 20%;">Use Class</th> <th style="width: 30%;">Existing GIA Floorspace (sqm)</th> <th style="width: 50%;">Proposed GIA Floorspace (sqm)</th> </tr> </thead> <tbody> <tr> <td>E(g) (i)</td> <td></td> <td>N/A – See PNF Form 1</td> </tr> <tr> <td>E(g) (ii)</td> <td></td> <td>N/A – See PNF Form 1</td> </tr> <tr> <td>E(g) (iii)</td> <td></td> <td>N/A – See PNF Form 1</td> </tr> <tr> <td>E(b)</td> <td></td> <td></td> </tr> <tr> <td>E(d)</td> <td></td> <td></td> </tr> <tr> <td>E(f)</td> <td></td> <td></td> </tr> <tr> <td>F2 (a)</td> <td></td> <td></td> </tr> </tbody> </table>		Use Class	Existing GIA Floorspace (sqm)	Proposed GIA Floorspace (sqm)	E(g) (i)		N/A – See PNF Form 1	E(g) (ii)		N/A – See PNF Form 1	E(g) (iii)		N/A – See PNF Form 1	E(b)			E(d)			E(f)			F2 (a)	
Use Class	Existing GIA Floorspace (sqm)	Proposed GIA Floorspace (sqm)																						
E(g) (i)		N/A – See PNF Form 1																						
E(g) (ii)		N/A – See PNF Form 1																						
E(g) (iii)		N/A – See PNF Form 1																						
E(b)																								
E(d)																								
E(f)																								
F2 (a)																								

<p>3c. Outdoor Sports Facilities (Use Class F2(c)). The area for outdoor sports facilities shall not exceed 3,500 m². External storage facilities shall comply with the restrictions set out in F11.3 of the Design Code.</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Are outdoor sports facilities to be provided? Yes/No</p>	
<p>If yes, please provide details of proposed area for outdoor sports facilities.</p> <p>Area m²</p> <p>Are external storage facilities required in connection with outdoor sports facilities to be provided? Yes/No</p> <p>If yes, please provide dimensions:.</p> <p>Height.m Depth m Length.....m</p>	

3d. Shops (Use Class F2(a)).	Office Use Only Compliant with the LGLPLDO2?
Please detail range of goods and/or services proposed: Please confirm there is no other such facility offering the same or similar range of good and/or services within 1km Yes/No	

3e. Colours and Materials (including cladding) The buildings and structures must be constructed with external finishes in the materials and colours listed in paragraph F4 of the Design Code. Materials for Outdoor Sports Facilities (Use Class F2 (c)) are detailed in F11.1-F11.8.	Office Use Only Compliant with the LGLPLDO2?																					
Please provide a description of the proposed materials and finishes to be used. <table border="1"> <thead> <tr> <th></th> <th>Material(s)</th> <th>Colours</th> </tr> </thead> <tbody> <tr> <td>External Walls</td> <td></td> <td></td> </tr> <tr> <td>Roof</td> <td></td> <td></td> </tr> <tr> <td>Windows</td> <td></td> <td></td> </tr> <tr> <td>Vehicle Access & Hardstanding</td> <td></td> <td></td> </tr> <tr> <td>Other (Please Specify)</td> <td></td> <td></td> </tr> <tr> <td>Surface materials for Use Class F2(c)</td> <td></td> <td></td> </tr> </tbody> </table>		Material(s)	Colours	External Walls			Roof			Windows			Vehicle Access & Hardstanding			Other (Please Specify)			Surface materials for Use Class F2(c)			
	Material(s)	Colours																				
External Walls																						
Roof																						
Windows																						
Vehicle Access & Hardstanding																						
Other (Please Specify)																						
Surface materials for Use Class F2(c)																						

3f. Ventilation and Extraction for Premises serving Hot Food Details are set out in F7 of the Design Code.	Office Use Only Compliant with the LGLPLDO2?
Please enclose a copy of written approval of a Ventilation and Extraction Design Statement (VEDS) from Thurrock Council Environmental Protection Officer (EPO).	

3g. Creche/Day Nursery (Use Class E(f)) Details are set out in F10 of the Design Code.	Office Use Only Compliant with the LGLPLDO2?
Please enclose a copy of written approval of a Creche/Day Nursery Design Statement (C/DNDS) from Thurrock Council School Effectiveness Team Manager.	

3h. Boundary Treatments. See Section I3 of the Design Code. Details of fencing for Outdoor Sports Facilities (Use Class F2 (c)) is set out in F11.1-F11.2.			Office Use Only Compliant with the LGLPLDO2?						
Please provide the following boundary treatment details:									
<table border="1"> <thead> <tr> <th>Means of enclosure / boundaries</th> <th>Material(s)</th> <th>Height (m)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Means of enclosure / boundaries	Material(s)		Height (m)					
Means of enclosure / boundaries	Material(s)	Height (m)							

<p>3i. Landscaping, lighting and street furniture (See paragraphs H and I (F11.4 for Use Class F2(C)) of the Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please provide a plan showing details of the following (as applicable):</p> <ul style="list-style-type: none"> - Soft landscaping and planting plan (including species selection) - Hard landscaping details and materials - Lighting - Street furniture <p>Please provide the detailed specification for lighting and street furniture. This shall include a drawing showing isolux contours.</p>	<div style="background-color: #cccccc; width: 100%; height: 100%;"></div>

Section 5 - Construction Details

For proposals involving the erection of new buildings only

<p>5a. The piling method - must be carried out in accordance with section D.7 of the Code of Construction Practice</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>If piling is required, please specify the piling design.</p> <p>Please provide details on the timing of works (start month and duration).</p>	

<p>5b. Plot Foul and Surface Water Drainage (see section K of the Design Code) & Flood Warning and Evacuation Plans</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please specify whether the development is located in the northern or southern drainage zone? Northern / Southern</p>	
<p>Foul Drainage</p> <p>Please provide detail of the Waste Water Treatment Plant and foul water drainage system.</p> <p>Please provide plans and drawings showing the scheme submitted to the Environment Agency in applying for an Environmental Permit.</p>	
<p>Surface Water Drainage</p> <p>Please provide details of how surface water will be disposed of:</p> <p>Please provide plans and cross-sectional drawings of any swales, attenuation ponds and outfalls (if required).</p> <p>If box culverts are required, please provide plans and sections.</p> <p>Please provide details and plans of any temporary drainage system.</p> <p>Please confirm that plans of the surface water drainage infrastructure have been sent to the Local Lead Flood Authority (LLFA) for inclusion on the Council's Flood Risk Asset Register. Yes/No</p>	

<p>Flood Warning and Evacuation Plan</p> <p>Please enclose a site specific Flood Warning and Evacuation Plan to include an overview of flood risk on the site, the potential impact of a breach of flood defences and recommended actions to ensure the safety of occupants and users of the development.</p> <p>Please state the maximum number of people likely to be present in the building at any one time.</p>	
---	--

<p>5c. Drainage Strategy for Outdoor Sports Facilities (see section F11.6-F11.8 of Design Code)</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please enclose a copy of the written approval from the Lead Local Flood Authority providing confirmation that the drainage strategy for the Outdoor Sports Facilities is acceptable.</p>	

<p>5d. Archaeological Assessment (see Section J of the Code of Construction Practice)</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please enclose a copy of the written approval from Thurrock Council of the Scoping Opinion and, where required, the Archaeological Assessment and Scheme of Mitigation.</p>	

Section 6 – Remediation

A site specific risk-based ground condition assessment of the nature of the subsoils shall be submitted to and approved in writing by the Local Planning Authority before the submission of the Prior Notification Form. If specific risks to human health or groundwater are identified, then a scheme designed to deal with potential unremediated contamination must be approved in writing by the Local Planning Authority prior to submission of this Prior Notification Form.

6a. Remediation Strategy	Office Use Only Compliant with the LGLPLDO2?
Please enclose a copy of the written approval from Thurrock Council of the remediation strategy.	

Section 7 – Parking and Transport

7a. Parking spaces - must be in accordance with the standards set out in sections G3 – G4 of the Design Code				Office Use Only Compliant with the LGLPLDO2?
	Existing No. of spaces	Proposed No. of spaces	Bay dimensions (m)	
Articulated HGV				
Rigid HGV				
Van				
Car				
Cycle				
Powered two wheeled vehicle				
Blue Badge parking				

7b Electric Charging Points – 1 space must be provided for plots with 50 spaces or fewer. Plots with more than 50 spaces must include 2% of the total. Passive provision to be provided for all remaining spaces. See section G3 of Design Code.	Office Use Only Compliant with the LGLPLDO2?
Number of electric charging points % of total	

<p>7c. Plot/Amenity Hub Based Vehicle Servicing - shall be in accordance with section G2 of the Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please confirm space is in accordance with above standards: Yes/No</p> <p>Please provide and plan showing plot/amenity hub based vehicle servicing. This shall include vehicle tracking details for the largest vehicle likely to be required.</p>	

<p>7c. Internal access roads, footpaths, cycleways and verges – see sections G1-G6 of the Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please provide detailed plans and cross-sectional drawings showing the following details as appropriate.</p> <p>Width of road(s)</p> <p>Materials</p> <p>Landscaping</p> <p>Service corridors</p> <p>Drainage channel</p> <p>Width of footpath and verges</p> <p>Materials for cycle path</p> <p>Roundabouts and junctions</p>	

<p>7d. Provision of cycle parking – must be provided in accordance with section G4 of the Design Code</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
<p>Please provide a plan showing the location and design of the proposed cycle parking.</p>	

Section 8 – Enclosures

Please include the following in your submission

8a. Plans / Drawings	Office Use Only Included Yes/ No
Location plan (scale 1:500 or 1:200)	
Site layout plan (scale 1: 500 or 1: 200):	
Elevations (scale 1:50 or 1:100)	
Existing and proposed layout/floor plans (scale 1: 50 or 1: 100):	
Existing and proposed elevation plans (scale 1: 50 or 1: 100)	
Roof plan (scale 1: 50 or 1: 100)	
Landscape plan (scale 1: 50 or 1: 100)	
Existing and Proposed site sections and finished floor and site levels (scale 1: 50 or 1: 100).	
Cross-section drawings of all roads, drainage channels and surface and foul water drainage systems (scale 1: 50 or 1: 100).	
Please list any other additional plans or drawings included in your submission.	

Section 9 – Declaration

<p>I / We hereby give notice of my / our intention to carry out the above development, I also confirm my intention that, if it is confirmed that planning permission is not required as provided for by the London Gateway Logistics Park Local Development Order 2, I / we shall only carry out the proposed work in accordance with the details included on this form and at the associated scaled plans. I / We understand that any variation from these details may require re-assessment.</p> <p>I / We confirm that any future occupier of a commercial building has been or will be informed of the obligation to submit an Occupier Travel Plan (where one is required) to the London Gateway Travel Plan Committee for verification prior to occupation of the commercial building. I / We confirm that, to the best of my / our knowledge, any facts stated are true and accurate and any opinions given are the genuine opinions of person(s) giving them.</p>	
Name:	
Signature:	
Date:	

Section 10 – Notification

Either 10a or 10b to be completed by Thurrock Council	
10a. Compliance with the LGLPLDO2 Thurrock Council considers that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2.	
Signature:	Date:
10b. Non-compliance with the LGLPLDO2 Thurrock Council does not consider that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2, for the reasons outlined below.	
Signature:	Date:

Informatives

Plans and Drawings

The site location plan / red-line site plan needs to clearly identify the site in question via a red-line drawn around the site area, needs to be drawn and printed to an identifiable scale, using recognised base maps (normally Ordnance Survey) and show the direction of North. It should also be clearly labelled and titled.

All other plans must be provided at the specified scale, unless otherwise agreed by the local; planning authority. The scale must be identified on all drawings along with a scale bar. Plans should also include a title, the date, drawing number, with revisions clearly identified and show the direction of north. Every plan based upon Ordnance survey maps must have the appropriate Ordnance Survey copyright notice.

Submitting the Prior Notification Form

Please submit the completed form and supporting/accompanying documentation electronically to:
Planning.applications@thurrock.gov.uk

Hard copies of any documents may be requested as necessary.

Notification Fee

Please review the LGLPLDO2 fee schedule to calculate the applicable notification fee for your proposal. Payment should be made by electronic transfer.

Time Period for a Response

Thurrock Council will acknowledge receipt of the form within **5 working days** and will process the application and complete the notification section of the form within **28 days** of receipt.

Other Consents

Please note that your development will still be subject to the normal requirements of any other consents or permissions required under other legislation (e.g. Building Control Regulations, Environment Agency Consents, Advertising Consent).

Contact Information

If you wish to discuss your proposal or have any queries regarding the form please contact the Development Management Team.

Tel No. **01375 652652**

Address. **Development Management Team,
Planning
Place Directorate,
Thurrock Council,
Civic Offices,
New Road,
Grays,
Essex
RM17 6SL**

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners

London Gateway Logistics Park Local Development Order 2

Appendix 6 :
Non-Material and Minor Material Amendment Notification Form



January 2025

Development Management Team, Planning, Place Directorate, Thurrock Council, Civic Offices, New Road, Grays, Essex, RM17 6SL

London Gateway Logistics Park Local Development Order 2 (LGLPLDO2) Non-Material and/or Minor Material Amendment Notification Form – NMA/MMA Form 3

Purpose of this form

By submitting this form you are requesting confirmation as to whether the works you are proposing, or works already carried out, constitute permitted development under the London Gateway Logistics Park Local Development Order 2 (LGLPLDO2).

Following the consideration of your request, Thurrock Council will complete the notification section (Section 5) thereby certifying that the proposals are or are not permitted development. This will constitute the formal response as required by the Order. Development that is not permitted under the LGLPLDO2 may require the submission of a formal planning application.

All sections should be completed either electronically or in black ink.

Section 1 – Contact Details

1a. Applicant Name, Address and Contact Details.					
Title:		First name:		Surname:	
Company name:					
Address:					
Telephone Number:					
Email					

1b. Agent Name, Address and Contact Details (if applicable).					
Title:		First name:		Surname:	
Company name:					
Address:					
Telephone number:					
Email:					

Section 3 – Compliance Details

Please explain how each proposed non-material / minor material amendment complies with LDO2 including appropriate references to the Order or paragraph number of the relevant compliance documents.

<p>3a. Compliance Details</p>	<p>Office Use Only Compliant with the LGLPLDO2?</p>
--------------------------------------	--

Section 4 – Declaration

I / we hereby confirm that if it is confirmed that planning permission is not required as provided for by the London Gateway Logistics Park Local Development Order 2, I / we have carried or shall only carry out the proposed work in accordance with the details included on this form and the associated scaled plans. I / we understand that any variation from these details may require re-assessment.

I / we confirm that, to the best of my / our knowledge, any facts stated are true and accurate and any opinions given are the genuine opinions of person(s) giving them.

Name:	
Signature:	
Date:	

Section 5 – Notification

Either 5a or 5b to be completed by Thurrock Council	
5a. Compliance with the LGLPLDO2 Thurrock Council considers that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2.	
Signature:	Date:
5b. Non-compliance with the LGLPLDO2 Thurrock Council does not consider that the development described in this form constitutes permitted development under the London Gateway Logistics Park Local Development Order 2, for the reasons outlined below.	
Signature:	Date:

Informatives

Plans and Drawings

The site location plan / red-line site plan needs to clearly identify the site in question via a red-line drawn around the site area, needs to be drawn and printed to an identifiable scale, using recognised base maps (normally Ordnance Survey) and show the direction of North. It should also be clearly labelled and titled.

All other plans must be provided at the specified scale, unless otherwise agreed by the local; planning authority. The scale must be identified on all drawings along with a scale bar. Plans should also include a title, the date, drawing number, with revisions clearly identified and show the direction of north. Every plan based upon Ordnance survey maps must have the appropriate Ordnance Survey copyright notice.

Submitting the Non-Material/Minor Material Amendment Notification Form

Please submit the completed form and supporting/accompanying documentation electronically to:
Planning.applications@thurrock.gov.uk

Hard copies of any documents may be requested as necessary.

Notification Fee

Please review the LGLPLDO2 fee schedule to determine the applicable notification fee for your proposal. Payment should be made by electronic transfer.

Time Period for a Response

Thurrock Council will acknowledge receipt of the form within **5 working days** and will process the application and complete the notification section of the form within **28 days** of receipt.

Other Consents

Please note that your development will still be subject to the normal requirements of any other consents or permissions required under other legislation (e.g. Building Control Regulations, Environment Agency Consents, Advertising Consent).

Contact Information

If you wish to discuss your proposal or have any queries regarding the form please contact the Development Management Team.

Tel No. **01375 652652**

Address. **Development Management Team,
Planning,
Place Directorate, Thurrock Council,
Civic Offices,
New Road,
Grays,
Essex
RM17 6SL**

Produced by
Adams Hendry Consulting Ltd

Sheridan House
40-43 Jewry Street
Winchester
Hampshire
SO23 8RY
Tel: 01962 877414
www.adamshendry.co.uk

 **Adams Hendry**
Chartered Town Planners