CONSTRUCTION PHASE PLAN

Phase II Prologis Park West London,

DC5/DC6 Iron Bridge Road
Uxbridge, UB11 1BT

Accepted by HSEQ Representative:

Name: TREVOR SWAILES

Date: 25/03/2022

Revision No.	Details of Revision	Date
0	Original submission to Client	25/03/2022
1	Amended to LB Hillingdon and Canal and Rier Trust comments	08/06/2022
2	Amended to Canal and Rivers Trust Comments	28/09/2022

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16. **Safety Inspection Reports**
17. **H&S Forms**
18. **Site Quality Plan**
19. **Project Environmental Plan**
20. **Pre-start Environmental checklist**
21 **Contractors Method Statements:** **(copies kept in subcontract files in the Induction room)**
22. **The Health and Safety File**

1. PROJECT PARTICULARS

THE NATURE OF THE WORKS:

The project comprises the design and construction of a two single -storey warehouse/production units of:

A.

- DC1 – 190,235ft² having a clear height to the underside of a haunch of 15m. Ground, first and second-floor office accommodation, external site works including hardstanding, car parking, landscaping and drainage. The works also includes all associated on-site infrastructure and landscaping.

- Gross internal areas:

Warehouse:	170,535 ft²	15,843 m²
Ground floor offices:	4,340 ft²	403 m²
First floor offices:	7,285 ft²	677 m²
Second floor offices:	8,075 ft²	750 m²
Total:	190,235 ft²	17,673 m²

B.

- DC2 – 139,435ft² having a clear height to the underside of a haunch of 15m. Ground, first and second-floor office accommodation, external site works including hardstanding, car parking, landscaping and drainage. The work also includes all associated on-site infrastructure and landscaping.

- Gross internal areas:

Warehouse:	170,535 ft²	15,843 m²
Ground floor offices:	4,340 ft²	403 m²
First floor offices:	7,285 ft²	677 m²
Second floor offices:	8,075 ft²	750 m²
Total:	190,235 ft²	17,673 m²

Site location: Ironbridge Road North, Uxbridge, UB11 1BT.
The construction phase of the project is due to commence on Monday 16th May 2022 with a contract programme of 44 weeks.

Employer (Client)

Prologis UK Ltd.
Prologis House, Blythe Gate
Blythe Valley Park
Solihull, West Midlands
B90 8AH
Contact – David Ribbands
T: 0121 224 8700
M: 07901 247 206
E-mail: dribbands@prologis.com

Employer Agent
RLF Management
Contact- Kevin Campbell
T: 0121 456 1474
M: 07836 777 458

Planning
Savills
Contact: Kathryn Humber
T: 01202 856 816
M: 0786 620 3503
Email: Kathryn.humber@savills.com
Website: www.savills.co.uk

Principal Contractor

Winvic Construction Ltd
Brampton House
19 Tenter Road
Moulton Park Northampton
NN3 6PZ (01604) 678960

Architect

Michael Sparks Associates
11 Plato Place
St Dionis Road
London
SW6 4TU
Tel 0207 736 6162
Email m.kong@msa-architects.co.uk

Principal Designer

RPS
Sherwood House
Sherwood Avenue, Newark
Nottinghamshire
NG24 1QQ
Contact: Richard Booker
T: 01636 605 700
E-mail: nicolas.mitchel@rpsgroup.com
richard.booker@rpsgroup.com

Structural Engineer

RPS

Sherwood House
Sherwood Avenue, Newark
Nottinghamshire
NG24 1QQ
Contact: Mike Roys/Mark Harris
T: 01636 605 700
E-mail: mike.roys@rpsgroup.com
mark.harris@rpsgroup.com

2. CONTACT NUMBERS

Project Manager	RICHARD REID	07725 791 288
Site Managers	CRISTIAN PRUTEANU EDISON HYSA	07927 500 156 07518 296 260
Engineer	TOMMY BARNES DAWID STARZYNSKI	07956 068 331 07341 608 476
Winvic	Head Office	01604 678 960
Construction Director	CRAIG BENHAM	07541 692 437
Operations Director	DAVE ROBERTS	07525 907 511
Principal Designer	RPS	01636 605 700
HSEQ Director	IAN GOODHEAD	07834 636 269
HSEQ Manager	TREVOR SWAILES	07802 878 499

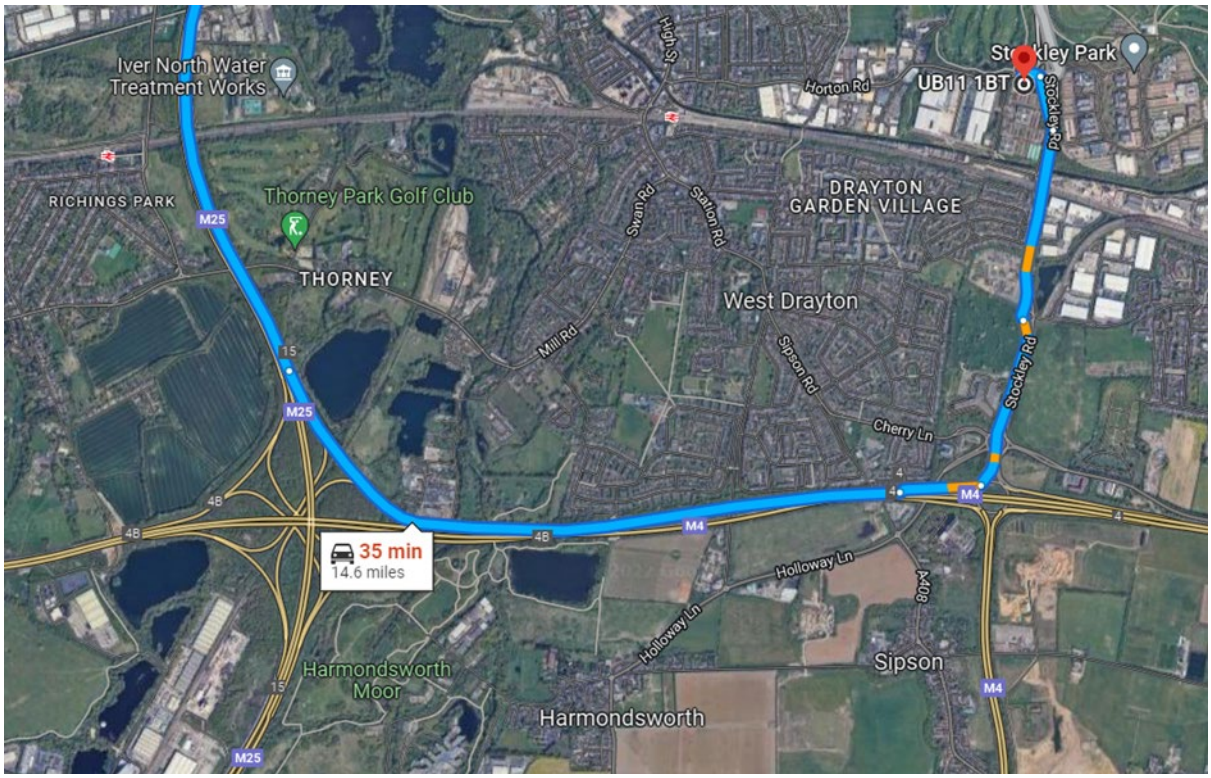
3. History of the Site

The site is approximately 10 acres in size. It is a brownfield site and was previously developed in the late 1980s. Before demolition, the site was used by a pharmaceutical development company (GSK). There will not be any structures following the demolition and preparation of the site. Insert history of the site.

Access to the site is from Ironbridge Road via Horton Road from the A408. Difficulty in accessing the site for large vehicles and plant is not envisaged.

Nearby properties include data centres and a Busy Bees Nursery, plus other commercial properties. The site is enclosed with a two-meters Heras fence.

Site Access Route from M25/M4 Motorways



3.1 Relevant Documents

Document	Details
Architect Drawings	Hels by Winvic in US
Topographical Survey Drawings	Held by Winvic in US
Project Risk Assessment	Held by Winvic in US
Existing STATS drawing	Held by Winvic in US
Service as laid drawings	Held by Winvic in US
Pre-Construction Information	RPS. Preconstruction Information Version 1 28/06/2021
Designers Risk assessment	Held by Winvic in US
Ground/Soil investigation	Held by Winvic in US
Ground remediation report	Held by Winvic in US
Construction Environmental Plan	Held by Winvic in US
Ecology report	Held by Winvic in US
F10 Notification	In CPP and displayed on site

3.2 HSEQ Goals for this project

Winvic Construction aim is to complete this project to its satisfaction with minimal accidents or instances of work-related ill health. In addition, the Winvic expects any contractors (all others associated with the project that Winvic appoint) to approach health and safety matters in a similar way in order to achieve the highest standards of safety performance. Any accident is to be properly investigated and recorded. In addition to achieving the Company's health and safety objectives, KPI's thresholds etc. which can be located within Winvic's H&S business plan this project team has the following goals:

- To meet HSE priorities and strive to raise the standards above legal compliance.
- To ensure co-operation between all parties involved to complete the project safely.
- To raise the awareness of interaction between site operatives and operations and members of the public, preventing trespass etc. and ensure liaison with the community occurs at all stages
- To have the works carried out in a manner which seeks to safeguard the safety, health and welfare of all those engaged in, or affected by, the works.
- To assist HSEQ Manager to undertake monthly health and safety inspections.
- Health, Safety and Environmental Reviews carried out at least once every 4 weeks.
- To attend monthly reviews of the project's health, safety and environmental performance with the HSEQ Manager.
- Zero RIDDOR accidents.
- Zero Environmental incidents.

It is also the aim of Winvic Construction to complete this project to the satisfaction of the London Plan along with LB of Hillingdon and the local councils Highways Officers requirements. The following goals will be implemented specifically for this project as advised by LB of Hillingdon.

- All Heavy Goods Vehicles shall comply with the Direct Vision Standard. A rating of 3 stars (or more) will be required. The Direct Vision Standard came into force on 1st March 2021 and forms part of the Safety Permit for all HGVs entering London (an area bounded by the M25 Motorway). It is the haulier's responsibility to comply with these regulations prior to entering the Enforcement Zone. Enforcement operates 7 days a week, 24 hours a day.
- All deliveries, particularly Heavy Goods Vehicles, to site shall be made using vehicles which have a Class VI mirror fitted in accordance with EU directive 2007/38/EC. This is to ensure improved fields of vision across the front of the vehicles.
- Where the operational risk levels illustrated within The Control of Noise at Work Regulations 2005 could be exceeded, the precautions set out to eliminate or reduce noise levels are to be implemented. Details of maximum exposure times are to be conveyed to the relevant Site Personnel and strictly adhered to.
- The site will comply and follow the published guidance by The Institute of Air Quality Management (IAQM) on how to assess impacts of emissions of dust from demolition and construction sites. Winvic will use STROMA who will install digital monitoring of noise/dust and vibration. Works will cease should any of the levels be breached.
- Winvic will ensure construction deliveries are received outside peak hours at all times. Site hours are between 8am and 6pm with all delivery's after 9am and before 5pm.
- There will be no daytime or overnight parking of lorries within the vicinity of the construction site. All deliveries shall enter site directly on arrival and not wait on any road in the vicinity of the site. All deliveries will be immediately directed to their drop off point on arrival. This is to reduce local congestion.
- The site will provide secured restricted access as the sole means of entry to site for cyclist along with secured turnstile entrance for pedestrians. The site entrance off Iron bridge road will be physically manned with a gateman also monitored using Bio-Site recording all deliveries and visitors.
- All vehicles shall have their engines switched off while not in use to avoid idling and any vehicles carrying waste and dusty materials will be adequately sheeted or covered

4. SITE OPERATIONS AND SELECTION OF SUB-CONTRACTORS

Construction

- Earthworks
- Groundworks
- External yards
- Drainage
- Steelwork
- Cladding / Roofing
- Warehouse floor slab
- Windows / Curtain walling
- Precast installation
- Dock levellers etc
- Fencing
- Landscaping
- Block paving
- Tarmac
- Entrance barriers
- Partitions
- Raised access floor
- Suspended ceilings
- Ceramic tiling
- Balustrades
- Carpets
- WC cubicles
- Decoration
- Security systems
- Frost protection
- Electrical installation
- Line Marking
- Mechanical installation
- Green Wall
- Green Roof
- Builders Clean
- Fire protection
- Bird protection
- Tree protection
- PV panels installation

The Sub contractors for the above packages are selected from a pool of sub-contractors, usually two for each trade, whom Winvic Construction Limited have worked with over a number of projects and have a track record for quality of work, the management of the site and a safe approach to working. Should we need to select from outside this pool, due to project location or workload, we meet with prospective sub-contractors, and visit a number of their sites and take references prior to working with them.

Where the client appoints contractors directly, the client will be required to provide evidence that the contractor has been suitably assessed as competent for the proposed works. Client appointed contractors suitably assessed as competent for the works will be managed on site in the same manner as WCL appointed contractors.

Prior to these works commencing onsite the client will be required to provide evidence that the contractor has been suitably assessed as competent for the proposed works. Proving competence of the workforce is vital, together with proving the operatives understanding of the UK Health & Safety Regulations are.

To aid this issue and as part the Winvic management procedures the WP25 has been produced and the purpose of this document is to provide guidance / controls to be adopted whilst undertaking Works for all contractors, both WCL approved, and Client nominated.

This company Working Practice applies to all contracts throughout Winvic Construction which are required to undertake works where we are not directly employing the Managing Contractor

Client appointed contractors suitably assessed as competent for the works will be managed on site in the same manner as WCL appointed contractors.

5. Company Management Structure

See plan overleaf.

Project Team

Prologis GSK, West London

winvic

Client

PROLOGIS

Design Team

rps

MICHAEL SPARKS ASSOCIATES

Craig Benham
Construction Director

David Simpson
Surveying Director

Ian Goodhead
HSEQ Director

Dave Roberts
Operations Manager

Paul Cain
Quantity Surveyor

Martin Law
Head of HSEQ- Industrial

Scott McDermott
Technical Manager

Maia Hulka
Design Manager

Aaron Duffy
Planner

Richard Reid
Project Manager

Dylan Askew
Quantity Surveyor

Trevor Swailes
Senior HSEQ Manager

Amit Patel
Senior Environmental Manager

Cristian Pruteanu
Site Manager

Tommy Barnes
Senior Engineer

Edison Hysa
Site Manager

Dawid Starzynski
Site Engineer

Maciej Sadlon
Site Engineer

Key

- Off site staff
- On site staff

winvic

6. F10

See overleaf.

Notification of construction project

Created Date: 13/05/2022

About the location of the site

Address of the construction site	FORMER GLAXO SMITHKLINE UK LTD, 1-3 IRON BRIDGE ROAD, WEST DRAYTON, UXBRIDGE, ENGLAND, UB11 1BT
In which local authority is the site address?	Hillingdon

About the project

Description of project	New Build: NB - Commercial - Warehouse
Description of the construction work	Design and construction of a single storey warehouse/production unit circa 140,000ft² and internal clear height of 15m. Ground, first and second-floor office accommodation, external site works including hardstanding, car parking, landscaping and drainage. The works also include all associated on-site infrastructure and landscaping. NB Demolition carried out under F10 ref:b1692b3f43
No of people on site	100
No of contractors on site	20
Start Date	16/05/2022
Time Allowed by Client (in weeks)	106
Duration (in weeks)	44

About those involved in the project

Name	Prologis UK Ltd	**Role**	Client
Email	dribbands@prologis.com	**Tel. Number**	0121 224 8700
Address	PROLOGIS HOUSE, BLYTHE GATE, SOLIHULL, ENGLAND, B90 8AH		

Name	RPS	**Role**	Principal Designer
Email	richard.booker@rpsgroup.com	**Tel. Number**	01636605700
Address	R P S PLANNING & DEVELOPMENT, SHERWOOD HOUSE, SHERWOOD AVENUE, NEWARK, ENGLAND, NG24 1QQ		

Name	Winvic Construction Ltd	**Role**	Principal

			Contractor
Email	daveroberts@winvic.co.uk	**Tel. Number**	01604 678960
Address	WINVIC CONSTRUCTION LTD, 19 TENTER ROAD, NORTHAMPTON, ENGLAND, NN3 6PZ		

Name	Michael Sparks Associates	**Role**	Designer
Email	s.darwin@msa-architects.co.uk	**Tel. Number**	020 7736 6162
Address	MICHAEL SPARKS ASSOCIATES, PLATO PLACE 72-74, ST DIONIS ROAD, LONDON, ENGLAND, SW6 4TU		

Name	RPS	**Role**	Designer
Email	mark.harris@rpsgroup.com	**Tel. Number**	01636605700
Address	R P S PLANNING & DEVELOPMENT, SHERWOOD HOUSE, SHERWOOD AVENUE, NEWARK, ENGLAND, NG24 1QQ		

Declaration details

Name	Richard Booker
Declaration	I have been asked by the client to notify on their behalf, and they have confirmed they are aware of their duties
Date	13/05/2022
Confirmation Email	richard.booker@rpsgroup.com

Client Signature (Can be used for your own records, ONLY if required)

Declaration (as stated above)

Name:

Declaration Signature:

Date:

Notification of construction project

Created Date: 13/05/2022

About the location of the site

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No of people on site	100
No of contractors on site	20
Start Date	16/05/2022
Time Allowed by Client (in weeks)	106
Duration (in weeks)	44

About those involved in the project

Name	Prologis UK Ltd	**Role**	Client
Email	dribbands@prologis.com	**Tel. Number**	0121 224 8700
Address	PROLOGIS HOUSE, BLYTHE GATE, SOLIHULL, ENGLAND, B90 8AH		

Name	RPS	**Role**	Principal Designer
Email	richard.booker@rpsgroup.com	**Tel. Number**	07985953367
Address	R P S PLANNING & DEVELOPMENT, SHERWOOD HOUSE, SHERWOOD AVENUE, NEWARK, ENGLAND, NG24 1QQ		

Name	Winvic Construction Ltd	**Role**	Principal

			Contractor
Email	daveroberts@winvic.co.uk	**Tel. Number**	01604 678960
Address	WINVIC CONSTRUCTION LTD, 19 TENTER ROAD, NORTHAMPTON, ENGLAND, NN3 6PZ		

Name	Michael Sparks Associates	**Role**	Designer
Email	s.darwin@msa-architects.co.uk	**Tel. Number**	020 7736 6162
Address	MICHAEL SPARKS ASSOCIATES, PLATO PLACE 72-74, ST DIONIS ROAD, LONDON, ENGLAND, SW6 4TU		

Name	RPS	**Role**	Designer
Email	mark.harris@rpsgroup.com	**Tel. Number**	01636 605700
Address	R P S PLANNING & DEVELOPMENT, SHERWOOD HOUSE, SHERWOOD AVENUE, NEWARK, ENGLAND, NG24 1QQ		

Declaration details

Name	Richard Booker
Declaration	I have been asked by the client to notify on their behalf, and they have confirmed they are aware of their duties
Date	13/05/2022
Confirmation Email	richard.booker@rpsgroup.com

Client Signature (Can be used for your own records, ONLY if required)

Declaration (as stated above)

Name:

Declaration Signature:

Date:

7. Programme

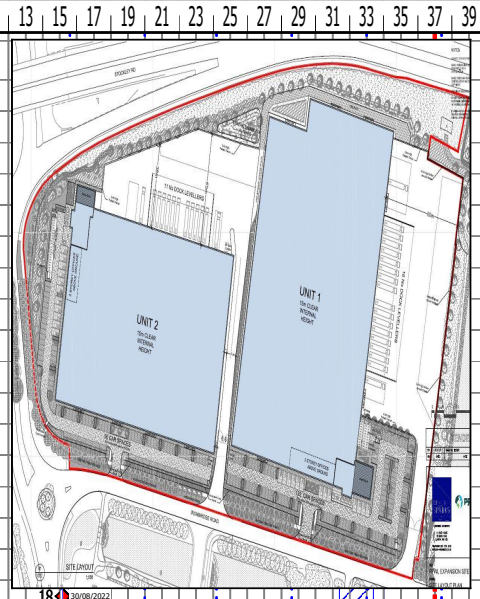
See a copy of the Construction Programme

Prologis GSK West London

CONTRACT PROGRAMME

Client: Prologis

Line	Name	Duration	Start	Finish
	PRE - CONSTRUCTION	**68w**	**11/11/2021**	**11/04/2023**
	Key Dates / Milestones	**68w**	**11/11/2021**	**11/04/2023**
3	Ecology Area Cleared & "Signed Off" [By Others]:		06/12/2021	06/12/2021
4	***Letter of Intent***		***06/12/2021***	***06/12/2021***
5	***Full Contractor Appointment***		***11/02/2022***	***11/02/2022***
6	Mobilisation	20w 2d	06/12/2021	13/05/2022
7	***Start on Site***		***16/05/2022***	***16/05/2022***
8	**Stats Disconnection (stats Order Placed By Client)**	**25w**	**11/11/2021**	**24/05/2022**
9	SSE Disconnection complete by 11-11-21		11/11/2021	11/11/2021
10	Affinity Water Disconnection		19/11/2021	19/11/2021
11	Cadent Gas Network Disconnection		24/05/2022	24/05/2022
12	Vodafone Disconnection		10/02/2022	10/02/2022
13	Confirmation of BT Fibre cable removal		25/04/2022	25/04/2022
14	**Provisional Sums (Client Instruction Reqd Dates)**		**28/02/2022**	**28/02/2022**
15	**Off site drainage system**		**28/02/2022**	**28/02/2022**
16	Off site drainage system - Client Instruction to Expend Prov. Sum		28/02/2022	28/02/2022
17	Off site drainage system - Lead-in (Manufacture / Mobilisation Period)		28/02/2022	28/02/2022
18	Commence S278 Works		30/08/2022	30/08/2022
19	Unit 2 stats live at boundary		26/09/2022	26/09/2022
20	Unit 1 stats live at boundary		07/11/2022	07/11/2022
21	Office watertight	45d	10/10/2022	12/12/2022
22	Unit 2 Office Watertight		10/10/2022	10/10/2022
23	Uint 1 office Watertight		12/12/2022	12/12/2022
24	Unit 2 Possible Warehouse Early Access		30/01/2023	30/01/2023
25	Unit 1 Possible Warehouse Early Access		20/02/2023	20/02/2023
26	Unit 2 Practical Completion		11/04/2023	11/04/2023
27	Unit 1 Practical Completion		11/04/2023	11/04/2023
28	Whole Project Practical Completion		11/04/2023	11/04/2023
29	**Design Development**	**25w 2d**	**06/12/2021**	**21/06/2022**
30	Procurement	29w	17/01/2022	12/08/2022
	Key Lead in Periods / Order Placement	**31w**	**06/12/2021**	**29/07/2022**
32	Steelwork Lead-in Period	18w	06/12/2021	26/04/2022
33	Cladding Lead-in Period (CA Products)	31w	06/12/2021	29/07/2022
34	Pre-Cast Concrete Lead-in Period		17/01/2022	17/01/2022
35	Dock Equipment Lead-in Period		31/01/2022	31/01/2022
36	**Section 278 Works Lead-in / Approvals Process:**	**34w**	**20/12/2021**	**29/08/2022**
37	**Incoming Statutory Services**	**30w**	**13/12/2021**	**25/07/2022**
38	Enabling Works (Demolition)	21w	10/01/2022	10/06/2022
	Site Wide Construction	**47w 1d**	**16/05/2022**	**11/04/2023**
40	Earthworks	3w 3d	16/05/2022	10/06/2022
41	Site Wide Retaining Walls	2w 3d	23/05/2022	10/06/2022
42	Off Site Drainiage works	5w 3d	30/05/2022	08/07/2022
43	Section 278 Works	3w 4d	30/08/2022	23/09/2022
	Unit 2 Construction	**42w 1d**	**30/05/2022**	**11/04/2023**
45	**Unit 2 Warehouse (123,390Sq ft) 11,463 sqm**	**35w 2d**	**30/05/2022**	**17/02/2023**
46	**Sub & Superstructure**	**11w 3d**	**30/05/2022**	**19/08/2022**
47	Whse Sub-base Piling Matt	2w 3d	30/05/2022	17/06/2022
48	Ground Improvement /CMC	5w	06/06/2022	08/07/2022
49	Foundations	4w	20/06/2022	15/07/2022
50	Structural Steelwork	5w	18/07/2022	19/08/2022
51	**Warehouse Envelope**	**24w 4d**	**01/08/2022**	**03/02/2023**
52	Gutters/ Syphonic Drainage	4w 4d	01/08/2022	02/09/2022
53	Nets / Handrails	4w 4d	08/08/2022	09/09/2022
54	Roof Cladding	15w 4d	15/08/2022	02/12/2022
55	**Wall Cladding**	**21w 4d**	**01/08/2022**	**13/01/2023**
56	Brise Soleil around office	3w	09/01/2023	27/01/2023
57	Wall Planters GL 15 Structural steel	1w	23/01/2023	27/01/2023
58	Wall Planters	1w	30/01/2023	03/02/2023
59	Pre-Cast Docks & Surrounds	1w	01/08/2022	05/08/2022
60	Dock Levellers & Equipment	4w	03/10/2022	16/12/2022
61	Level Access Doors	1w	12/12/2022	16/12/2022
62	**Internals**	**3w**	**19/12/2022**	**20/01/2023**
63	Warehouse Floor Slab inc Trim	3w	19/12/2022	20/01/2023
64	**Warehouse Finishes & Slab Curing**	**4w**	**23/01/2023**	**17/02/2023**
65	***Warehouse Early Access***		***30/01/2023***	***30/01/2023***
66	**Unit 2 Main Office (16,045Sq ft)1491Sqm**	**31w 4d**	**20/06/2022**	**10/02/2023**
67	**Unit 2 Main OfficeStructure & Envelope (External Office)**	**15w 4d**	**20/06/2022**	**07/10/2022**
68	**Unit 2 Main Office Services & Finishes**	**19w**	**19/09/2022**	**10/02/2023**



1. TENDER & CONTRACT,2. D+P Codes

Milestones | Pre-construction | Construction

WINVIC CONSTRUCTION LIMITED
Brampton House
19 Tenter Road
Moulton Park
Northampton NN3 6PZ.
Tel : 01604 678960. Fax : 01604 671021

Programme No: P21-051 draft Contract Programme	Issue Date: 28/02/2022
Programme Status: Version 21.4	Revision Date : 10/03/2022 Revision No: 1
Chart Comments :	Chart Author : AD

winvic

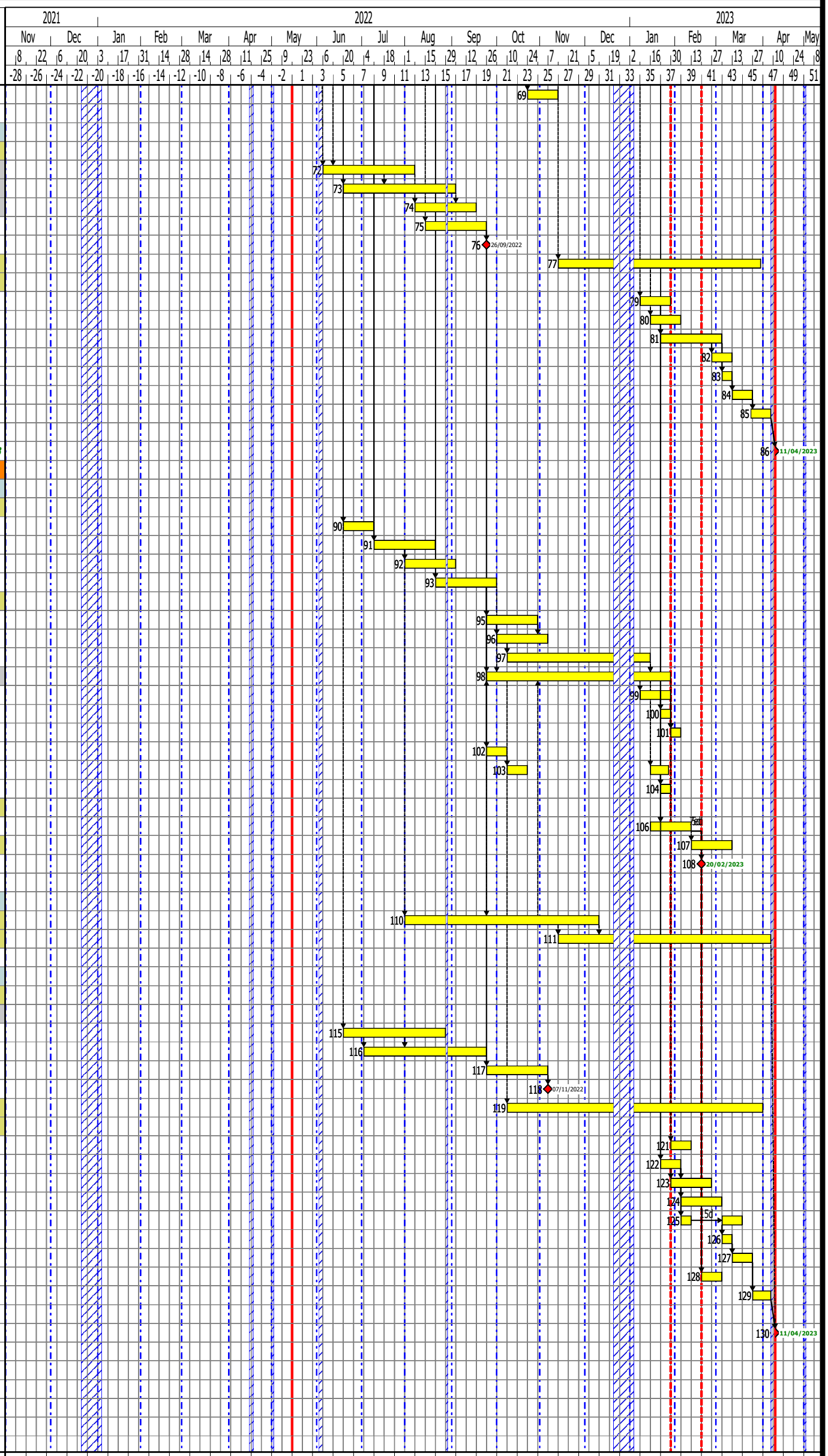
Prologis GSK West London

CONTRACT PROGRAMME

Client: Prologis

PROLOGIS®

Line	Name	Duration	Start	Finish
69	Lift Installation	3w	24/10/2022	11/11/2022
70	**Unit 2 External Works (Car Park Comp, & Finishes)**	**41w 3d**	**06/06/2022**	**06/04/2023**
71	**Unit 2 External Works (Yards / Road & Car Park)**	**14w 4d**	**06/06/2022**	**16/09/2022**
72	**Unit 2 Drainage and Ducting**	**9w**	**06/06/2022**	**05/08/2022**
73	**Unit 2 Yards/ Road:**	**10w 4d**	**20/06/2022**	**02/09/2022**
74	**Unit 2 Car Park: 1st Visit**	**5w 4d**	**08/08/2022**	**16/09/2022**
75	Incoming Stats	5w 4d	15/08/2022	23/09/2022
76	**All Statutory Services (Power, Gas, Water ON)**		**26/09/2022**	**26/09/2022**
77	**Car Park Completion**	**17w 4d**	**14/11/2022**	**30/03/2023**
78	**General External Finishes :**	**12w 4d**	**09/01/2023**	**06/04/2023**
79	External Protection (Bollards, Armco)	3w	09/01/2023	27/01/2023
80	Topsoil	3w	16/01/2023	03/02/2023
81	Soft Landscaping (Seasonal)	6w	23/01/2023	03/03/2023
82	Boundary / Yard Fencing, Gates	2w	27/02/2023	10/03/2023
83	Smoking Shelter	1w	06/03/2023	10/03/2023
84	Cycle Store	2w	13/03/2023	24/03/2023
85	Final Clean	2w	24/03/2023	06/04/2023
86	***Unit 2 Practical Completion***		***11/04/2023***	***11/04/2023***
	Unit 1 Construction	**39w 3d**	**20/06/2022**	**11/04/2023**
88	**Unit 1 Warehouse (170,535 Sq ft)15,843sqm**	**35w 4d**	**20/06/2022**	**10/03/2023**
89	**Sub & Superstructure**	**14w 4d**	**20/06/2022**	**30/09/2022**
90	Sub Base	3w	20/06/2022	08/07/2022
91	Ground Improvement /CMC	6w	11/07/2022	19/08/2022
92	Foundations	4w 4d	01/08/2022	02/09/2022
93	Structural Steelwork	5w 4d	22/08/2022	30/09/2022
94	**Warehouse Envelope**	**17w**	**26/09/2022**	**03/02/2023**
95	Gutters/ Syphonic Drainage	5w	26/09/2022	28/10/2022
96	Nets / Handrails	5w	03/10/2022	04/11/2022
97	Roof Cladding	12w	10/10/2022	13/01/2023
98	**Wall Cladding**	**16w**	**26/09/2022**	**27/01/2023**
99	Brise Soleil around office	3w	09/01/2023	27/01/2023
100	Gable Wall Planters Structural steel	1w	23/01/2023	27/01/2023
101	Wall Planters	1w	30/01/2023	03/02/2023
102	Pre-Cast Docks & Surrounds	2w	26/09/2022	07/10/2022
103	Dock Levellers & Equipment	3w 4d	10/10/2022	26/01/2023
104	Level Access Doors	1w	23/01/2023	27/01/2023
105	**Internals**	**4w**	**16/01/2023**	**10/02/2023**
106	Warehouse Floor Slab inc Trim	4w	16/01/2023	10/02/2023
107	**Warehouse Finishes & Slab Curing**	**4w**	**13/02/2023**	**10/03/2023**
108	**Warehouse Early Access**		**20/02/2023**	**20/02/2023**
109	**Unit 1 Main Office (19,700 Sq ft) 1830 Sqm**	**33w 3d**	**01/08/2022**	**06/04/2023**
110	**Unit 1 Main Office Structure & Envelope (External Office)**	**18w 4d**	**01/08/2022**	**09/12/2022**
111	**Unit 1 Main Office Services & Finishes**	**18w 4d**	**14/11/2022**	**06/04/2023**
112	**Unit 1 External Works (Car Park Comp, & Finishes)**	**39w 3d**	**20/06/2022**	**06/04/2023**
113	**Unit 1 External Works**	**13w 4d**	**20/06/2022**	**23/09/2022**
114	**Unit 2External Works (Yards / Road & Car Park)**	**13w 4d**	**20/06/2022**	**23/09/2022**
115	**Unit 2 Drainage & ducts**	**10w**	**20/06/2022**	**26/08/2022**
116	**Unit 2 Yard**	**11w 4d**	**04/07/2022**	**23/09/2022**
117	Incoming Stats	6w	26/09/2022	04/11/2022
118	**All Statutory Services (Power, Gas, Water ON)**		**07/11/2022**	**07/11/2022**
119	**Car Park Completion**	**23w**	**10/10/2022**	**31/03/2023**
120	**General External Finishes :**	**10w 4d**	**23/01/2023**	**06/04/2023**
121	External Protection (Bollards, Armco)	2w	30/01/2023	10/02/2023
122	Topsoil	2w	23/01/2023	03/02/2023
123	Soft Landscaping (Seasonal)	4w	30/01/2023	24/02/2023
124	Boundary / Yard Fencing, Gates	4w	06/02/2023	03/03/2023
125	Acoustic Fencing	3w	06/02/2023	17/03/2023
126	Smoking Shelter	1w	06/03/2023	10/03/2023
127	Cycle Store	2w	13/03/2023	24/03/2023
128	Internal Protection	2w	20/02/2023	03/03/2023
129	Final Clean	1w 4d	27/03/2023	06/04/2023
130	**Unit 1 Practical Completion**		**11/04/2023**	**11/04/2023**



1. TENDER & CONTRACT,2. D+P Codes

Milestones | Pre-construction | Construction

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Programme No: P21-051 draft Contract Programme	Issue Date: 28/02/2022
Programme Status: Version 21.4	Revision Date : 10/03/2022 Revision No: 1
Chart Comments :	Chart Author : AD

8. Hazard Identification Form:

S31 To be inserted.

HAZARD IDENTIFICATION FORM

Site Name: Phase II, Prologis Park West London	**Client: Prologis**
Assessor (Planning): N/A	**Contract No: P21-051**
Assessor (Construction): Trevor Swailes/Richard Reid	**Date: 16th May 22**

This form should be commenced during the initial survey and tender stages to assist in the identification of relevant legislation, associated hazards and proposed work practices. It should be added to following site surveys and when other hazards are communicated via Designers, Principal Designers or others. **Higher Risk** activities are in **Bold** and where these are identified as being present additional technical and specialist advice should be sought from competent persons for advice on the provision of additional controls. Hazards identified on this form should be communicated to contractors requested to tender / carry out the works and the construction team.

DESIGN & TENDER PLANNING	Yes	No		Yes	No
Adjacent to water	X		**Working over water**		X
Public highways adjacent	X		**Diving Operations**		X
Residential area	X		**Lifting Operations**	X	
Schools / play areas close by	X		**Highways Work**		X
Members of the public in the area	X		**Working at Height**	X	
Other vehicles in the area	X		**PHYSICAL ACTIVITY HAZARDS**		
Restricted parking in the area		X	**Use of Vibrating Tools**	X	
Restricted access to site		X	**Substances Hazardous to Health**	X	
Livestock in the area		X	**Welding / hot work**	X	
Overhead services in the area		X	**Dust / Fume inside building**	X	
Railway services in the area		X	**Plant / Equipment used inside**	X	
Narrow roads		X	**High Noise Levels**	X	
Steep / uneven ground		X	Manual Handling Operations	X	
Other buildings / structures / bridges		X	**MOBILE PLANT**		
Height restrictions		X	Mobile Plant to be used	X	
Security issues		X	Mobile Elevated Working Platforms	X	
Compact building plot		X	Materials Hoists		X
Roof lights	X		Person Hoists		X
Underground shafts		X	Tower Cranes	X	
Underground gases		X	Mobile Cranes	X	
Asbestos materials present		X	Piling operations	X	
Contaminated land	X		**WORK AT HEIGHT**		
HAZARDOUS MATERIALS			Scaffold to be erected	X	
Vermin	X		Ladders to be worked off	X	
Pigeons (excrement)	X		Use of Stepladders	X	
Fumes and gases		X			
Chemical works		X	**PEOPLE**		
Lead		X	Working in Isolation		X
Oil storage		X	Winter Working	X	
Underground gas services		X	Young Persons employed	X	
Underground electrics	X				
Underground water pipes		X	**Other Hazards Identified**		
Live electrics present	X		**COVID 19**	X	
Live Optical Fiber	X		**Airport Proximity**	X	
PCB's		X			
Radiation emitting devices		X			
Compressed/Flammable Gas		X			
HIGH RISK ACTIVITIES					
Excavations	X				
Demolition Works	X				
Working Adjacent to Railway		X			
Temporary Works / Falsework	X				
Electrical Works / Testing	X				
Confined Spaces	X				

9. Site Procedures

9.1. Site Inductions and Risk Assessment

- All operatives will take Winvic's online induction and present the unique code to the site team before a site-specific induction can take place.
- All operatives will attend a specific site induction prior to starting work on site.
- A site-specific Risk Assessment and Method Statement will be prepared for all activities.
- All operatives to be briefed on their method statement prior to commencing work.
- All visitors to site will receive the WCL visiting induction – accompanied at all times by fully inducted personnel.

9.2. Welfare Facilities – Please refer to WP04

The welfare facilities that are to be deployed to the project will consist of:

- Drying Room
- Canteen with microwave, water boiling, toaster, fridge.
- Washing facilities suitable for washing forearm including hot and cold water, soap and dryer

No of persons on site	No of washbasins
1 – 5	1
6 – 25	2
26 – 50	3
51 – 75	4
76 - 100	5

- Flushing toilet facilities for male, female & disabled.

No of persons on site	No of WC's	No of urinals
1 – 5	1	1
6 – 25	2	1
26 – 50	3	2
51 – 75	4	3
76 - 100	5	4

- First aid & defibrillator
- Smoking shelter
- Offices and meeting room

Additional standalone welfare facilities will be provided for the Gateman located at the construction traffic access/egress gate. These facilities will provide:

- WC facilities
- Adequate heat, lighting and ventilation
- Facilities for heating food, keeping food chilled, boiling water.

In addition to the above facilities, a commercial canteen will be established onsite for use by all site personnel. The presence of the canteen will be notified to the local authority no less than 28 days prior to trading commencement. A 5 score on the food hygiene rating is required by WCL.

Welfare will be cleaned daily with the generated waste being stored onsite in sealed euro bins/skips and removed from site by a licensed carrier.

Power for the cabins will be supplied from generator. The generator will be installed, tested and certificated by Steven Halsall. Electrical test certification is held on the WCL H&S notice board.

9.3. Segregation of Pedestrians and Works Traffic – Please refer to WP08

- Access and egress for all vehicles will be off Junction 14 of the M25 onto M4/A408, Stockley Park West, Ironbridge Road North.
- Contractors and visitors parking will be inside the site boundary in the designated car park.
- Operatives must be inducted before they start work, and all visitors must sign in using the visitor's book and be accompanied by a Winvic Construction Limited supervisor.
- Contractors who need to bring vehicles onto site can only do so with prior arrangement with Winvic site management so as not to have any effect on general site operations, pedestrian routes, safe accesses etc.
- Access from site to the workplace will be via designated routes, which will be part of the site induction. Access routes will be fenced off to define route and protect pedestrians.
- All operatives/visitors must wear high visibility vests while on the site.

9.4. Access to site

Access to the site is from Iron Bridge North Road. The site is in Stockley Park West – Uxbridge.

Site working hours will be:

07.00 – 18.00 Monday to Friday
07.30 – 13.00 Saturday

The site will not be operational on Sunday and Public holidays.

Due to the proximity of residential dwellings, noise creating activities that may cause nuisance to the residential dwellings will be planned during the following times:

08.00 – 18.00 Monday to Friday
08.00 – 13.00 Saturday

Unauthorised access to the site will be prevented by:

- Fortel Nexus operate 24hour/7days security which will be located at the construction traffic access/egress gates.
- All personnel are required to sign in and out at the security gate house using TA – device
- The access gate will be secured with 2.4 high timber hoarding and lockable gates
- All other boundaries will be secured with 1.8m high chain link fencing.
- A vehicle barrier will be positioned at the construction traffic access/egress gate.
- The presence of the delivery drivers and contractor's drivers entering site via the construction traffic access gate will be logged on the electronic Biosite access control system.
- Gates will be locked shut during non-working hours.
- Access to the site for general personnel will be via the site carpark/office and welfare area.
- The carpark, office and welfare area will be segregated with fencing from the construction zone.

- Electronic turnstiles will be positioned in the car park and office/welfare zone to control access to authorised personnel only into the construction zone.
- Security over night by means of manned guarding.
- Signage warning of construction site no unauthorised access will be positioned on the boundary fencing.

- The boundary fencing will be visually inspected at periods not exceeding 7 days.

9.5. Work at Height – Please refer to WP02

Work at height equipment will be identified in the trade contractor's task specific risk assessment and method statement.

The following work at height equipment will be utilized to deliver the contract works:

Aluminium Step ups – last resort

- Only proprietary aluminium step-ups are to be used on this project.
- Platform use is subject to risk assessment and should be specified as a last resort when it is not reasonably practicable to use a safer means of low level access equipment.
- Platforms are to have a minimum safe working load of 150kg and a platform height not exceeding 600mm
- Platform dimensions are to be no less than 600mm by 600mm unless risk assessment justifies smaller dimensions.
- All anti slip feet must be present and free from defects.
- User instructions and max load capacity labels are to be displayed and legible.
- Platform usage is prohibited in open areas and within 3 meters of any edge protection / open void.
- The supporting surface is to be capable of, maintaining the platform stability, supporting the applied loads and be free from slip / trip hazards.
- Platforms are to be tagged to indicate the owning trade contractor.
- Platforms are to be secured against unauthorised usage when not in use.

Ladders & Steps – last resort

- Ladders / stepladders are not banned on this project, but their use is strictly controlled by risk assessment.
- Ladders / stepladders are prohibited from use if it is reasonably practicable to use access equipment that presents less risk of falling.
- Only Class 1 and EN131 compliant ladders and steps are to be used.
- Ladder / stepladder users will be instructed in the safe use of the equipment.
- Ladders / stepladders will be inspected by the user prior to each use and recorded in writing at periods not exceeding 7 days.
- Equipment will be tagged to indicate the owning trade contractor.
- Steps are to be secured against unauthorised usage when not in use.
- Defective ladders / steps will be removed from use immediately.

Mobile Aluminium Towers

Mobile towers will be suitable for the task being carried out and selected to provide the working platform at the required height.

Mobile towers are to be:

- Erected, adapted and dismantled by a competent person (PASMA) in accordance with the manufacturer's instructions. (Instructions to be issued to the competent person).
- Inspected:
  - Prior to first use by a competent person with the inspection recorded in writing.
  - After each adaption and after any incident likely to affect the towers structural stability. Inspection recorded in writing.
  - At periods not exceeding 7 days where the platform height is at or above 2 meters.
- Tagged to indicate the owning trade contractor.
- Operatives required to use mobile towers but not PASMA trained are to be provided with a toolbox talk on the safe use of mobile towers.
- Towers are to be secured against unauthorised use when not in use.

Podium Steps / Folding Room Towers

- Erected, dismantled and used by a trained person in accordance with the manufacturer's instructions. (Instructions to be issued to the trained person).
- Inspected:
  - Prior to first use by a competent person with the inspection recorded in writing.
  - After each adaption and after any incident likely to affect the towers structural stability. Inspection recorded in writing.
  - At periods not exceeding 7 days where the platform height is at or above 2 meters.
- Tagged to indicate the owning trade contractor.
- Equipment is to be secured against unauthorised use when not in use.

Scaffold Platforms

- Tube and fitting scaffold will be designed in accordance with TG20: 13 by the scaffold contractor / designer.
- For scaffolds outside TG20: 13 parameters a bespoke design will be developed by a competent scaffold designer.
- The scaffold will be erected by CISRS accredited personnel in accordance with SG4: 15.
- The scaffold contractor is required to inspect the scaffold prior to handover and then issue a handover certificate for the scaffold.
- The scaffold will then be subject to the following inspections: (recorded in writing)
  - periods not exceeding 7 days.
  - after alteration, adaption & dismantling; and
  - after any occurrence likely to affect the structural stability of the scaffold.
- Hand tools used for scaffold operations will be tethered.

Roof Edge Protection

- The permanent roof edge protection will be installed as the structural steel frame is constructed.

System Scaffold Staircase

- System staircase scaffolds will be erected by competent personnel in accordance with the manufacturer's instructions.
- Inspections in line with Scaffold Platforms will be carried out.
- Hand tools used for scaffold operations will be tethered.

Fall arrest nets – Metal Deck, Roof Installation, Roof Light Construction

- Fall arrest nets will be specified and installed by a competent contractor using FASET trained operatives.
- The area under the net will be clear of obstructions to a height exceeding the maximum deflection of the net when arresting a fall.

- Nets will remain in position under the roof lights until the roof lights have been declared nonfragile.
- Nets will be inspected:
  - prior to being installed
  - Prior to first work above with a hand over certificate issued.
  - Visually prior to start of each work shift above the nets.
  - at periods not exceeding 7 days – written inspection records kept
  - After a fall of person or substantial material into the net.
  - After any alteration, adaption to the net installation or its anchor points.

Mobile Elevated Work Platforms (MEWPS)

- MEWPS are prohibited from use on site unless subjected to the WCL plant authorisation process and issue of a WCL plant sticker.
- WCL plant sticker to be visible at all times on the MEWP.
- Report of thorough examination dated within the last 6 months, is to be issued to WCL site team prior to use of the MEWP on site.
- MEWPS are to be operated by persons holding valid IPAF or CITB training for the relevant category of MEWP.
- The trade contractor is to ensure MEWP operators receive familiarisation training for the MEWP prior to use.
- MEWPS will be subjected to daily pre-use inspections and function checks with these inspections and checks recorded in writing.
- Use of fall restraint lanyards are mandatory when operating a cherry picker type MEWP.
- Trade contractors RAMS will include emergency rescue procedures to rescue person suspended at height.
- Proprietary material racks will be used to secure materials where they cannot be stowed on the floor of the MEWP.
- All hand tools will be tethered at all times when used from a MEWP.
- Chin straps are to be used with safety helmets when working in a MEWP.
- Secondary guarding system will be used on MEWPS where a risk of entrapment risks are present.

Work at Height General

- Access to vehicle beds is prohibited unless risk assessed and proprietary access and fall mitigation measures are implemented and used by trained personnel.
- Structural steel will be erected in accordance with the design erection sequence as dictated by the steel subcontractor.
- The structural engineer prior to erection commencing on site will review the erection sequence.
- All operations which involve work at height to have approved method statements
- Areas at ground level to be segregated to prevent unauthorised access underneath operations at height
- Fall prevention plan
- S15 Permit to Work at Height
- S18 Working at Height Regulations

9.6. Control of Noise/Dust and Vibration

The proposed methods for ensuring the control of noise levels and dust to neighbours will be in accordance with BS 5228:

- All Plant will be within noise regulation limits.
- All machine and plant will comply with NRMM regulation and meet Stage IIIA of EU Directive.
- Due to the position and technical specification of project WCL installed and monitors the noise, vibration and dust emission. The monitoring devices will be installed at the limit of site close to canal and Bee Nursery.
- 24 hr running Generator for compound will be of the 'super-silence' type.
- Vibration will be limited due to the technical solution adopted for ground improvement CMC (Controlled Modulus Columns)
- Dust will be controlled with the use of 'dust suppression' equipment when required, consisting of:
  - Offsite manufacture where practicable.
  - Dustless cutting techniques.
  - On tool extraction.
  - Wet cut techniques.
  - Towed water bowser.
- Concrete yards and permanent roadways are planned early in the constructions program to maintain clean access roads and provide clean areas for material off-loading and laydown.
- Also see section 9.33, Canal and River Trust.

9.7. Control of Surface water during the Construction Phase

Temporary Surface Water Management Plan – Refer to attached document E10

9.8. Logistic Plan

- Access and egress for delivery vehicles off Stockley Road – Horton Road- Ironbridge Road North to the construction traffic entrance.
- Signage will be deployed along the access roads to direct delivery vehicles.
- Plant and material deliveries will be prior notified to the WCL site team no later than 48hours prior to arrival onto site so as to prevent congestion on the estate roads.
- Designated offloading and laydown areas will be assigned to each trade contractor.
- Sufficient space will be allowed to ensure delivery vehicles can pull off the business park roads whilst awaiting processing at the site gates.
- Trade contractors are responsible for the offloading and movement of materials around the site. (Detailed in the task RAMS).
- Excess material will be removed from the work zone and stored in the assigned storage area.

9.9. Use of Cranes –Please refer to WP10

- A permit to lift issued by WCL will be required for all crane operations - S09 Permit to Operate Crane.
- All crane lifts will be planned by an appointed person with the lift specific plan submitted to WCL for review as part of the task RAMS.
- A qualified lift team will be appointed to the lifting operation consisting of a crane supervisor, crane operator and slinger / signaller.
- The lift zone will be segregated with a physical barrier and signage positioned.
- Non crane lifting operations (loads suspended from forklift, telehandler, excavators, etc.) will be:
  - Planned by a competent person.
  - Carried out by a trained operator and slinger / signaller.

- Fir forklifts / telehandlers - carried out using suitable lifting accessories which attach the slings to the forks / carriage – looping chains / slings over forks is prohibited.
- Buckets will be removed from excavators prior to attaching chains / slings.

- Non crane plant carrying out lifting operations of suspended loads will display a green WCL lifting operations sticker.

Heathrow Airport

The airport has been contacted and informed of the works and use of cranes. Prior to each operation utilizing cranes commencing, the designated airport contact will be contacted for the issue of a permit for use of the crane.

Crane Coordination

All crane operations will be coordinated by the WCL site team with authorisation as detailed above.

During periods where cranes are required to operate in close proximity to each other the coordination will be managed by:

- WCL will appoint a designated lift coordinator from the site team with a deputy.
- General lifting planning meeting will be held – attended by all subcontractor appointed persons.
- Weekly crane coordination meetings will be held:
  - Chaired by the WCL appointed lift coordinator.
  - Attended by the trade contractor's supervisors and crane supervisors.
  - Review the previous week's crane operations.
  - Coordinate no less than the forthcoming weeks lifting operations.
  - Minutes of the meeting will be developed and distributed to all attendees and the WCL site team.
- Daily prestart meeting will be held between trade contractor's supervisors / manager and lift supervisors.
  - Chaired by the WCL Appointed lift coordinator.
  - A laminated marked up plan will be used to record the discussions of the meeting.
  - A photo of the detail recorded on the marked-up plan will be issued to all appropriate trade contractors and the WCL site team.

The appropriate Appointed Person will be consulted should changes to the agreed lifting operations plans be identified.

The hazard board will be maintained with current information to reflect the daily lifting operations with contractor meeting held where lifting operation is deemed to affect an adjacent operation.

9.10. Movement of Vehicles on Site –Please refer to WP08

Visiting Vehicles

- All drivers will report to the gatehouse / site office
- Drivers will be given the WCL visiting driver induction and required to display the WCL induction card in the cab window whilst on site. Induction card will be returned to the security when existing site.
- Contact will then be made with the relevant subcontractor, advising them of the delivery.

- The subcontractor's representative will be required to take control of the visiting vehicle for the duration of its presence on site.
- Flashing beacons / hazard lights will be operational during vehicle movement on site.

General

- Methods to control the movement of vehicles in and around site:

Site Speed Limit 

  - Designated vehicle travel routes
  - Designated pedestrian routes – segregated with barriers.
  - Designated pedestrian crossing points across vehicle routes.
  - Use of vision aids on mobile plant
  - Banksman assigned for reversing vehicles
  - Signage
  - Competent operators
  - Plant maintenance and inspections.

9.11. Excavations – Please refer to WP14 and WP24

Earthwork and Groundwork Contractors are to plan their works in line with Geotechnical Assessment Report issued by Crossfield Consulting Geotechnical Environmental.

- S20 Inspection of Excavations
- All excavations to be fenced off and back filled immediately on completion
- The SI report has identified that running sand and ground water may be present on the site. The appointed ground works contractor will provide details for earthwork support structures and dewatering solutions where required.
- Groundwork's contractors will be required to consult specialist groundwater contractors to ascertain a suitable dewatering solution where required.
- SI reports deem all excavations to be unstable.
- Excavation support systems are to be designed / specified by a competent person and recorded in the WCL temporary work management documents.
- S07 Permit to Enter, S08 Permit to Break Ground and confined spaces will be operated
- Ground water in trenches will be removed using a sump pump system. Refer to the Construction Environmental Management Plan for further guidance on the management of dewatering activities.
- Marked up services drawing to be displayed within offices
- All existing services to be marked up prior to excavation commencing

- Deep trench work will be supported using a mechanical trench support system
  - No areas of contaminated land have been identified by the site investigation but should contaminated land be discovered then all works in that area will be stopped until the contamination is identified
  - Upon identification of any contamination then a detailed procedure will be developed for its safe removal

9.12. Confined Spaces – Please refer to WP14

- S07 Permit to Enter - Working in confined spaces
- A permit to enter system will be operated for entering confined spaces

9.13. Mobile Plant

- Mobile plant is to be authorised for use by the issue of a WCL plant sticker – sticker to be displayed on the plant at all times.

- Be operated by a person holding suitable training and experience – checked at induction.
- The trade contractor is to ensure plant operators receive familiarisation training.

- Will be subjected to daily pre-use inspections and function checks - recorded in writing. (Cranes, forklift, MEWPS)
- Inspected at periods not exceeding 7 days – recorded in writing.
- Vision aids to be fitted, positioned correctly, cleaned and operational at all times.
- Visual and audible beacons to be used at all times.
- Mobile plant is to be immobilised when not in use to avoid danger to children / unauthorised usage, by:
- Keys removed (including the Deadman key), cabs locked.
- Small plant stored in lockable container
- All mobile plant to be parked within the site boundary

9.14. Refuelling Machinery –Please refer to WI08

The methods of refuelling machinery so as to avoid contamination by diesel and fluids:

- Designated refuelling area established for mobile plant.
- The refuelling area will be located no closer than 10m from the new drainage system once constructed (unless specific protection is provided to the egress point of the new drainage system).
- Bulk fuel will be stored in a double skin bowser with integral bund. Bund cleared as required.
- Bowsers will be kept locked shut when not in use.
- Drip trays / plant nappies will be deployed during refuelling operations.
- Petrol will be stored in designated plastic / metal containers located in metal bunded and ventilated cabinets. Cabinets will be kept locked shut when not in use.
- Spill kits will be positioned adjacent to the storage area.
- Spill kit training will be provided where required.
- Fuel storage and refuelling operations will be detailed in the contractor's task RAMS. (Briefed to operatives).

9.15. Access For Emergency Vehicles

- Directional / location map will be given to all contractors and deliveries.
- Delivery times will be co-ordinated so as not to cause congestion on the approach roads and site gates.
- Site access will be clearly identified via signage and hoarding.
- WCL construction traffic are prohibited from parking / waiting on the estate roads.
- During emergency situations the gateman will maintain the site gate clear of any obstruction and direct the emergency vehicle to the appropriate location.
- Works will be coordinated with the adjacent construction site to ensure clear access is available to both sites.
- The external yard slabs will be constructed early in the project program providing suitable hardstanding access for emergency vehicles to all elevations of the structure.

9.16. Hot Works –Please refer to WP14

- A Hot works permit will be required for all cutting and burning operations.
- Fire extinguishers will be available for all hot works.
- Operatives must be trained in the use of fire extinguishers.

9.17. Client fit out

If specific client fit out requirements come on board prior to PC being achieved by Winvic Construction Limited a liaison meeting will be held to in order to fully coordinate the works to be carried out and establish and required protocols.

9.18. Management of unforeseen events

The procedure for managing unforeseen events and the assessment of abnormal risks and hazards:

- Winvic to hold regular meetings to discuss forthcoming events.
- Use of in-house specialist, H&S advisor, etc.
- Use of Design Team and Principal designer.

9.19. Communication with the Workforce – Please refer to WP22

The methods of communicating Health & Safety issues to the work force are:

- Site Hazard Board
- Safety Inductions prior to commencement of work on site.
- Discussions on Method Statements & Risk Assessments.
- Periodic black hat briefings, both informal and formal minutes depending on what stage of construction is at. This can be recorded on the Q36 Sub-contractor Minutes.
- Toolbox talks
- Safety Leaflet, posters.
- S03 Visitors' Induction

9.20. Management of the Construction Phase Plan

- Design Team Meetings
- Contractors made aware of the plan at 'Pre-let 'meetings and inductions.
- Monthly Safety Meetings.

9.21. Reporting of Accidents and incidents – Please refer to WP01

- All incidents, accidents, and near misses will be reported to the HSEQ Manager.
- A Winvic Construction Limited representative will take any required witness statements and photographs at the scene in order to collate a report and also pass this on, if required, to the employer of any individual involved.
- The Winvic Construction Limited nominated company Safety Representative and Operations director are also advised as soon as practicable.
- Info tracker to be completed to report incidents.

9.22. Arrangements for the Exchange of Information around the Design Team.

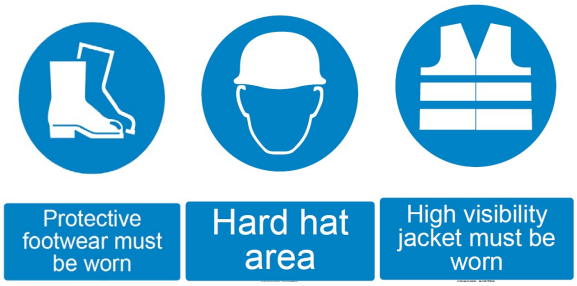
- The Designers shall be made aware of the Client's requirements and design brief including the pre-tender Health and Safety Plan.
- The Designer must co-operate with the Principal designer and other Designers.

- During the design phase 2 weekly design team meetings will be held. These will provide the opportunity to review designer risk assessments, design solutions, construction risks and operational/maintenance issues.
- The means for communicating across the project team, including the Client and their representatives, the Designers, the Principal designer, the Principal Contractor (where

- applicable), sub-contractors, workers on site and others whose Health & Safety may be affected, will be by direct verbal contact, memos, letters, instructions, permits to work, notices, drawings, plans and meetings. Contact may also be via telephone, fax, post or e-mail.
- As design, including verification proceeds details will be issued to Contractors on site for construction and copies retained for inclusion in the Health & Safety file, as appropriate.

9.23 PPE

Other PPE maybe required as part of the sub-contractor risk and method statement.



9.24 Protection of public

- Access and egress for construction vehicles is off Stockley Road – Horton Road- Ironbridge Road North to the construction traffic entrance.
- Signage will be positioned on Horton Road – Ironbridge Road North along the designated access route.
- Signage will be positioned along the estate roads warning of the construction site entrance.
- Directional signage will be positioned adjacent to each site access/egress.
- Parking of construction vehicles and site plant will be inside the site boundary.
- Vehicles will exit the site in a forward direction.
- Signage warning existing drivers of crossing pedestrians / vehicles will be positioned at the two site exits.
- The site boundary will be secured with 1.8m chain link fencing.
- The site hoarding and chain link fence will be subjected to the WCL temporary works procedure to ensure stability.
- Materials and plant will be stored inside the site boundary with consideration given to stability of stacked materials.
- Works to be completed outside the site boundary will be co-ordinated with the WCL management company and will be fully guarded and signed.
- Wheel cleaning provisions will be positioned at the site gate for use during bulk earthworks and initial groundwork period.
- Road sweeper will operate on Iron Bridge Road for 8hours daily to keep it clean.

9.25 Storage of materials / COSHH on site

- The site plan shows the site layout with the site compound which is where all materials will be stored. Any flammable materials / hazardous materials will be stored as per COSHH / safety Data information sheet required. There will be a secure container on site. For any larger COSHH items they will be secured in a secure and lockable container.
- The storage compound should be established in a location to allow management and the control of deliveries close to the site entrance. The Site Management Team should decide if this is appropriate taking into account the location of the nearby live storage warehouse and access arrangements.
- Any compound areas established must be securely fenced to ensure no unauthorised access is available.

9.26 The use of hazardous materials on site

- All COSHH data sheets will be supplied with the relevant RAMS to the site team who will use the approved S05 review form.
- Hazardous material will then be assessed using the guidance provided in WI08.
- Regular checks will be carried out by the Winvic team to ensure all procedures are to be followed correctly.
- All COSHH items will be recorded on the E05 COSHH master sheet.

9.27 Temporary Works - Structures / Unstable Structures identified. Please refer to WP24

Temporary Works requirements will be coordinated by the appointed Temporary Works Coordinator (TWC) in accordance with WCL WP 24. The WCL TWC has been appointed formally in writing by the WCL Designated Individual (DI) using S47 Letter of Appointment TWC (signed letter retained on Union Square).

WCL S48 Temporary Works Register will be used by the WCL TWC to document the temporary works management process for the foreseeable temporary works.

Temporary Works Supervisors (TWS) will be appointed to supervise installation, use and dismantling of temporary works schemes in accordance with WP24, where the WCL TWC requires assistance for specific temporary works schemes. WCL directly appointed TWS are appointed formally in writing by the WCL DI using S46 Letter of Appointment TWS and contractor appointed TWS appointed in writing by the contractor DI.

The foreseeable temporary works for the project are detailed on the WCL S48 Temporary Works Register

Note: Project TW documentation is retained in the WCL site office filing system and electronically on Union Square.

9.28 Manual Handling – Please refer WP09

All elements of manual handling will be removed where possible and replaced with mechanical means.

- Wherever possible mechanical handling methods must be used for locating materials, in accordance with the Manual Handling Operations Regulations 1992 and “Backs for the future” HS (G) 149.

- If mechanisation is not an option and equipment or materials exceed the limitations of the personnel, then Winvic will write a manual handling risk assessment and convey to all relevant parties.
- Any repetitive lifting over 20kg will also need to be assessed and the appropriate actions to reduce the risk implemented. All persons involved with manual handling must be instructed on

- how to carry out the task safely. It is recommended that all personnel on site undergo manual handling training.
- The lifting of kerb stones must be undertaken using mechanical means when installing the road and car parking system.

9.29 Water Management Plan

Water Management Procedure

Introduction

This procedure has been produced to mitigate the potential for water service-related damage losses and project delays. The primary application of this document is for the construction of new build high rise projects.

This procedure is targeted at all parties involved with the management and use of both permanent and temporary water on site.

This procedure should be used as a guide and project specific risk assessments and controls should be developed and implemented in conjunction.

Training

- Training will be provided to all individuals and operatives working on water management procedures. The PM will carry out toolbox talks to brief site managers of the procedure and how to implement it and monitor the performance and of the installers.
- The checking of competency for installers must be carried out prior to any system installation or testing. This will be done by way of certification checking during inductions.
- Subcontract installers will have to provide training and briefing to the employees and individuals installing or testing the systems when pressure testing with air or hydraulic testing procedures.

Emergency

- During the working day any signs of leaking pipework or continually damp areas will need to be reported to the Project Manager or a Winvic member of staff.
- Should there be a major leak occur during the working day the Project Manager should be notified immediately, and the main isolation valve shut off without delay. The Project Manager will ensure the water is shut off and the leak dealt with. Any works must be rectified and repaired by a competent plumber and fully tested in accordance with the testing procedure to ensure no reoccurrence happens.
- Full contact details of the designated person will be issued to the security guard about out of hours reporting.

Design

- Isolation valves in plantroom and strategic locations to risers/corridors to allow local testing/operation.
- Anti-surge/air release and vacuum breaking valves fitted to top of risers to protect against rapid filling/pressurization of system

- Inverter driven booster pumps to enable soft starting and slower pressure boosting rates.
- Tried and tested robust materials and jointing systems capable of exceeding maximum working pressures
- Pressure reducing valves fitted to all corridors to keep higher pressure distribution to the plantroom and risers.
- For high riser over 40m high the boosters are split to a high pressure and standard pressure systems to keep as much pipework as possible at the standard pressure.
- To help mitigate any damage in the event of a leak during temporary construction conditions the water supplies where possible should be installed in risers.

Construction

- Temporary supplies are located to keep the number of feeds required to a minimum to serve the construction of the building.
- All temporary water feeds are isolated at the ground floor at the end of the working day by a nominated individual.
- Clear visible signage is to be displayed at each riser showing the cut off valves.
- A register is to be completed at the end of each day showing the valves have been isolated displaying the time and person completing the task. This document will be stored and retained electronically on the SnagR tablet.
- A drawing is available in the office detailing where the shut off point is on site.
- A stop valve is also located on each floor to isolate the water as required.
- Where possible the temporary supply should be located within a drainage
- Toolbox talks carried out with wet work trades
- Emergency contact information available for security in the event of an incident.

Post Incident Reporting

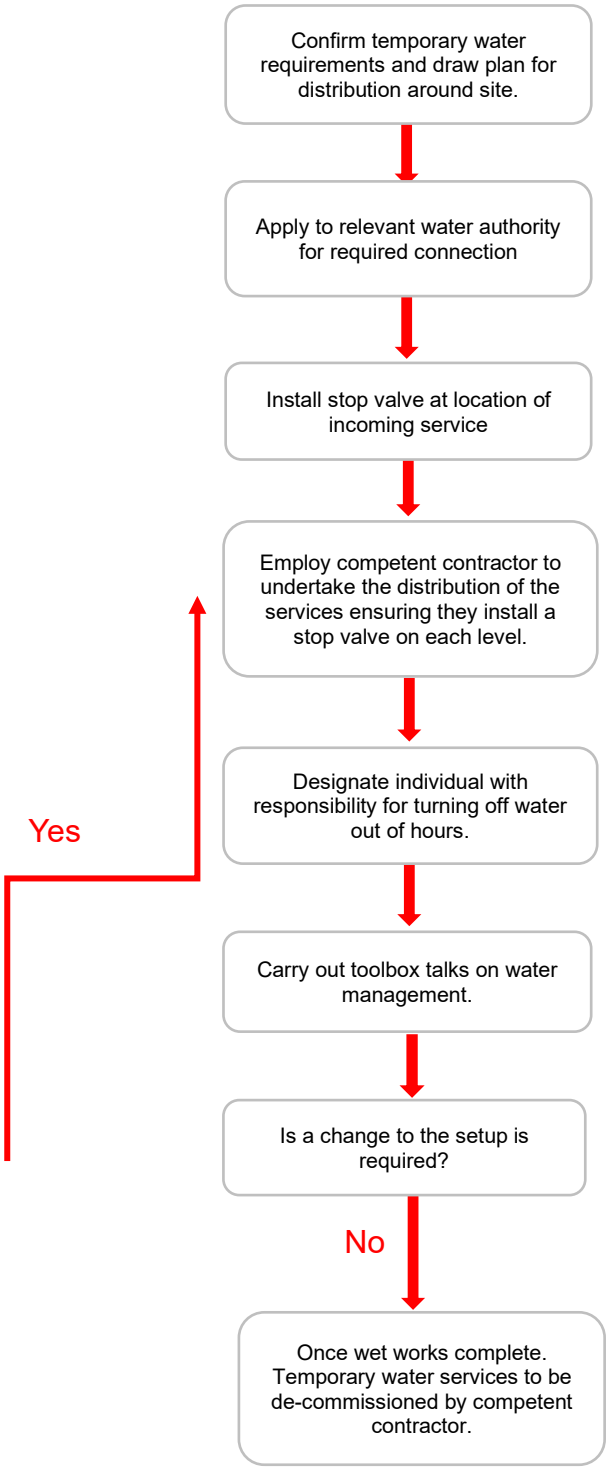
- In the event of a leak occurring a post incident report will be issued to the safety and commercial department. A follow up investigation may be undertaken dependent on the severity of the leak.

Testing

- Prior to carrying out testing of a water system a competent contractor must be appointed to carry out the works and a testing plan submitted to Winvic for review.
- The testing plan must include details of the type of tests being carried out, pressure to be achieved and how the safety of those operating around the pipework will be maintained.
- Signage detailing the test must be displayed in the test area.
- For the majority of projects, a Pneumatic Test (air) will be carried out first followed by a Hydraulic pressure test (water).

- When carrying out a pneumatic test the pressure in the pipework must not exceed 0.5 bar and the test area should be limited to 100 litres volume to limit the amount of stored energy. If the source for the air test is at a higher pressure a reducing valve and a safety valve must be provided and opened to reduce the pressure.

- All testing equipment being used must be calibrated as per the manufacturer's recommendation.
- While the pipework is under a high pressure test all operatives not involved in the test must be separated from the test with an exclusion zone. With this in mind it is important to plan the testing prior to install to ensure you can test in manageable areas.
- Once under test if the pressure is dropping over a period of 10 minutes' walk around the system and carry out leak detection.
- If the pressure holds constantly for a period of 10 minutes release the pressure and proceed with the hydraulic test.
- When carrying out a hydraulic test only the parts of the system that are involved in the test should be filled. For example, if you are testing metal pipework that connects into plastic the plastic may need to be isolated.
- The system will likely be filled from a temporary connection if this is the case the connection should incorporate a double check valve.
- The filling pressure should be sufficient to fill the system within a reasonable time period at the highest part of the system the fill pressure should be a minimum of 0.5 bar.
- At all times the fill pressure and the test pressure should not exceed 1.5 times the nominal pressure rating of any of the systems components. It is recommended that the system is filled and checked in increments, so any leaks are discovered at lower pressure.
- When carrying out the test competent operatives should be stationed around the tested system to locate any leaks in a timely manner. A designated drain point should be available so the system can be drained quickly if a leak is discovered.
- The test pressure must be monitored throughout the test. If the pressure falls walk around the test area to locate the leak.
- If the pressure remains constant for an hour the test is considered a pass, unless the test plan calls for a greater degree of testing.
- Once the test is complete it should be signed off and witnesses by the appropriate person(s).
- Once the test is complete the system should be left charged for a period of 48 hours to allow to soften/dissolve any loose materials after this the system can be drained. The contractor carrying out the test must have a suitable plan to monitor the system during this period.


Confirm temporary water requirements and draw plan for distribution around site.
Apply to relevant water authority for required connection
Install stop valve at location of incoming service
Employ competent contractor to undertake the distribution of the services ensuring they install a stop valve on each level.
Designate individual with responsibility for turning off water out of hours.
Carry out toolbox talks on water management.
Is a change to the setup is required?
Yes
No
Once wet works complete. Temporary water services to be de-commissioned by competent contractor.

9.30 Operating under COVID 19 Pandemic Conditions

The site will be operated in accordance the WCL "COVID 19 Site Operating Guidance for Site - Protecting Our Workforce" (Latest Edition) with a WCL "S29 Risk Assessment - Controlling operatives on site with COVID 19 controls" developed and implemented for the project.

A Site Operational Procedures Document (COVID 19 Plan) will be developed and approved by a member of the WCL Board of Directors prior to re-commencement or continuation of the works on site – the provisions within the Site Operational Procedures Document will enhance or supersede any associated arrangements detailed within the project Construction Phase Plan.

Site Start Up

Sites re-starting after an extended shut down period will be brought into operation in a controlled manner using the WCL Project Start-up Checklist.

Site Traffic Management Plans

Project traffic management plans will allow for social distancing requirements and remain under continual review to reflect current and foreseeable site conditions.

Subcontractor Safe Systems of Work

Subcontractors safe systems of work will be revised to allow the implementation of WCL "COVID 19 Site Operating Guidance for Site - Protecting Our Workforce" with the revised RAMS reviewed by WCL to ensure the proposed SSOW can be implemented and operated in line with wider site operations.

Work tasks will be prohibited where they cannot be undertaken in a safe manner when allowing for the requirements contained in the WCL "COVID 19 Site Operating Guidance for Site - Protecting Our Workforce".

First Aid Provision

First aid provisions will be maintained on site during operational hours but with amended provisions as detailed on the WCL information Sheet 160 – COVID 19 First Aid Guidance.

Communication of Information

The appropriate information will be communicated to the relevant person in the following manner:

- Contractors have been issued with the WCL "COVID 19 Site Operating Guidance for Site - Protecting Our Workforce".
- WCL Project Managers will brief the WCL site team on the required procedures contained within the Site Operational Procedures Document (COVID 19).
- Contractors'
- supervisors will brief their employees on their safe systems of work prior to commencing on site with written records issued to the WCL site team.
- WCL Working During COVID 19 Pandemic posters will be displayed in prominent locations throughout the WCL and subcontractor site office and welfare facilities.
- WCL signage displayed throughout the site reminding of the site COVID 19 control measures (i.e. social distancing).
- Traffic management plans will be displayed in the site WCL and subcontractor site office and welfare facilities and the site hazard board.
- WCL First Aiders will be briefed on the amended first aid provisions.
- Revisions to documents / information for controlling COVID 19 risks will be brought to the attention of the required persons via toolbox talks and issue of updated document.

Site operating procedures will remain under review in line with further guidance and direction issued by the UK (Welsh) Government and / or Public Health England / Wales.

9.31 UV protection

UV protection is managed by individual contractor's dependant on the exposure levels during the work task. Weather conditions are monitored for the week ahead with work conditions monitored daily considering the weather conditions. Operatives are permitted to take regular rest breaks out of the sun.

9.32 Cartridge Operated Tools

The use of cartridge operated tools on WCL projects shall be pre-planned and risk assessed by the trade contractor requiring use of the tool, taking account of:

- Protection against accidental firing - interlock system fitted.
- Selection of the correct cartridge – guidance given by manufacturer's instructions and suppliers with cartridges being compatible with the tool being used.
- Selection of the correct pin/fixing – guidance given by manufacturer / supplier with test fixings carried out as required.
- Misfire procedure in accordance with the manufacturer's instructions
- Protection of the working Area.
- Protection of the operator – use of eye protection (goggles) and hearing protection (attenuation suitable to noise level/frequency)
- Storage - contractors should inform WCL prior to bringing cartridge tools onto site and provide the following storage facilities:
  - tools to be kept in rigid box / case supplied by the manufacturer when not in use.
  - toolbox / case placed in a lockable chest with the chest locked shut.
  - tool not left unattended when not in use
  - cartridges stored in the manufacturers packaging
  - minimum quantity of cartridges required for use kept in the box with the tool.
  - unused cartridges placed back in the manufacturers packaging and stored in the case and lockable steel chest.
  - Cartridges stored away from sparks and naked lights.
- Inspection, maintenance and cleaning – tool should be cleaned and maintained in line with the manufacturer's instructions with service records available for inspection on site. Users should visually inspect the tool before each use.
- Training - operatives of 18 or older should use cartridge with the user holding valid training for the tool make and model being used. Evidence of training should be issued to WCL at induction.
- Disposal of cartridges – fully spent cartridges disposed of in general waste and non-spent cartridges disposed of as hazardous waste under waste ammunition 16 04 01*.

9.33 Working near Grand Union Canal

Structural Calculations
RPS Engineering have identified there is no risk to the stability of the canal infrastructure during the construction phase using structural calculations laid out on Drawing 2605. Drawing 2605 produced by RPS in liaison with Patrick McElroy of the Canal and River Trust also shows the development in particular the boundary retaining wall is not reliant on support from the canal slope. CDP Structural Engineering have been employed by Winvic as the temporary works coordinator, they have confirmed there is no impact on the canal during the demolition phase of the works, Collins Earthworks have produced specific RAMS for this area.

Code Of Practice
All works will comply with the Code of Practice for Works affecting the Canal & Rivers Trust. This document will be kept on site and form part of the Winvic prestart construction pack making all the subcontractors aware of what is required when working on site.

Works
The works contain two phases (demolition and construction) Demolition only requires one subcontractor who will be employed by Winvic to carry out the works (Collins Demolition). Collins site specific RAMS containing a section related to the protection and wellbeing of the users of the waterway and the waterway environment will be implemented.

Winvic as the main contractor will provide the overall protection of the canal environment and user by mitigating the impact of noise/dust and vibration. Winvic will employ STROMA to install monitoring equipment along the south boundary, the equipment will alert all by sending an email should any of the limits exceed (at this point works will cease) Winvic will also erect a temporary 8' acoustic fence along the boundary for a period of 10 weeks then replaced with the new permanent acoustic fence for the remaining 37 weeks (location shown in section 9.35 TPO. Page 53).

Works - Demolition
Winvic have employed one subcontractor to carry out the demolition of the old GSK buildings (Collins Demolition) Before and works commence Collins Demolition will produce site-specific RAMS which will contain a section related to the protection and wellbeing of the canal. During the works Collins will mitigate noise/dust/vibration using the following methods (methods will be in their site-specific RAMS)

- **Vibration** – Collins will remove all foundations to Building 11 located nearest the canal using the fixed jaw muncher attached to the digger rather than the breaker. The materials will be moved into the centre of site for crunching.

- **Noise** – Modern equipment will be used on site as required by the London Plan NRMM. This equipment will pull any foundations gently away from the boundary and into site for munching. No breaking will take place within 40m of the south boundary.

- **Dust** – Should they be required Collins Demolition will install a water cannon dust buster which will spray dampen any airborne dust onto the floor without flooding this equipment will be connected to the mains under licence from Affinity Water and only used if required. Works will cease on windy days if dust is blowing around.

Works – Construction
Winvic will use various subcontractors for this phase of works all of which are on the Winvic list of approved accredited contractors. All will produce RAMS for approving before commencing work on site. The first activity will be earthworks. Winvic have employed Collins Earthworks to complete this work. Collins Earthworks are the largest earthworks company in the UK and therefore all their equipment is less than 3 years old complying with the NRMM. Earthworks will consist of reshaping the ground and less likely to produce noise/dust/vibration however the rules are the same as demolition.

- **Vibration** – Collins will use a 10t roller to compact the earth causing local vibration, should this set off any alarms they will use a smaller 5t roller.

- **Noise** – Noise is minimum during this activity usually diggers engines running. These will run between 8am and 6pm only.

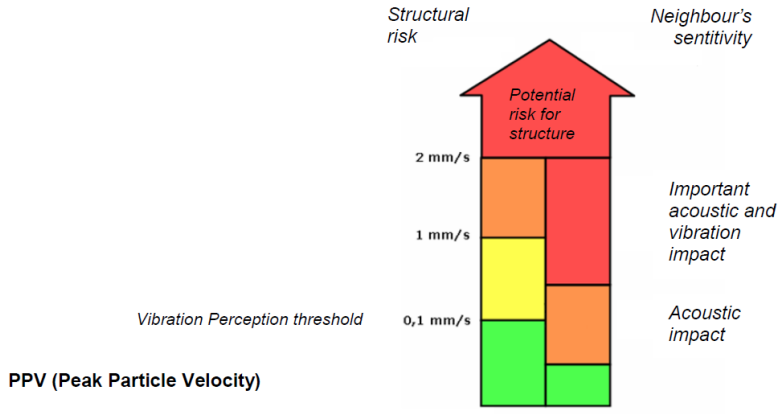
- **Dust** – Dust is also minimal, usually at ground level with the odd plume controlled with the dust buster if required. all works will stop if levels are exceeded.

Future Works
All works will require precuring. Once precured the subcontractor will follow the same rules as the previous ones regarding Noise/dust/vibration also with emphasis on litter and the Waste Management Plan.

9.34 CMC Ground Improvement

- The CMC operation global sound power level has been characterized at 116dB(A). Generated noise levels require PPE were in a radius of about 20 meters from the main noise source.
- Regarding the acoustic impact on the environment, a slight exceedance of the emergence criterion can be observed up to a distance of about 50m in an urban circulated area.
- The plant vibration impact, under conditions encountered during the measurement. Doesn't produce vibration levels which could cause exceedance in comparison with the vibration limits accepted by BS ISO 4866:2010/BS 6472 and BS6472.

Picture 1 - Vibration risk and sensitivity scale



Comments:

- In terms of vibration, the potential risk for the structure is considered when 2 mm/s are exceeded. This value depends on the building type and the peak frequencies.
- Vibrations are generally perceptible by the human being above 0.1 mm/s.
- Vibrations generate noise levels by radiation of the walls through the premises. The acoustic impact is generally expressed before the vibration perception, when the peak particle velocity reaches 0.05 mm/s.

- The shortest distance between the edge of the Grand Union Canal and the ground area which need to improved it's 62M which means it's no any impact in structure of the Canal.

2.1 Sound power measurements

Sound power measurements have been conducted during the CMC operation which required the following equipment:

- Rig E600 n°1 (S/N 5373), using R180 rotational table.
- SCHWING BP1800 (S/N 1010784) Concrete Pump.
- TAKEUCHI TB290 Loader.

> The loader has not been characterized “in operation” because of other predominant noise sources in operation on site: only its "stand-by" noise levels is given.

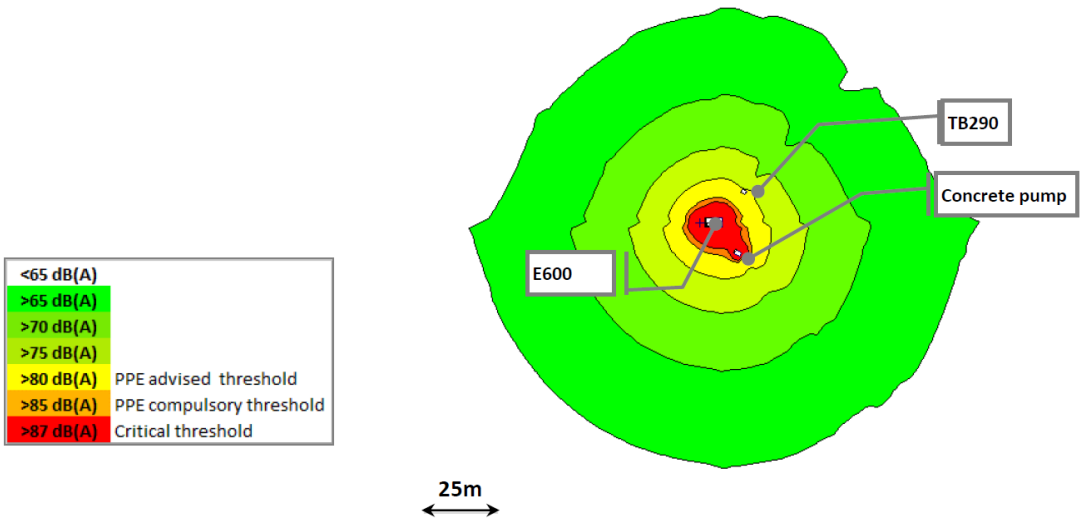
Acoustic characterization sheets for each equipment are provided in appendix 4 of this report.

Different measurements of sound pressure levels were performed at different distances from the noise sources, enabling SOLDATA ACOUSTIC to calculate their sound power level through the acoustic modelling software CadnaA.

The purpose of this analysis is to estimate the sound power level L_{wA} of each equipment required for this CMC operation.

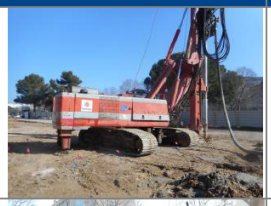
The noise map below shows the sound levels generated nearby the CMC operation, and identifies the areas with a potential "noise risk" for operators.

Picture 2 - Acoustic impact of the Controlled Modulus Columns operation



The following table indicates the sound power and spectrum of each equipment characterized on site.

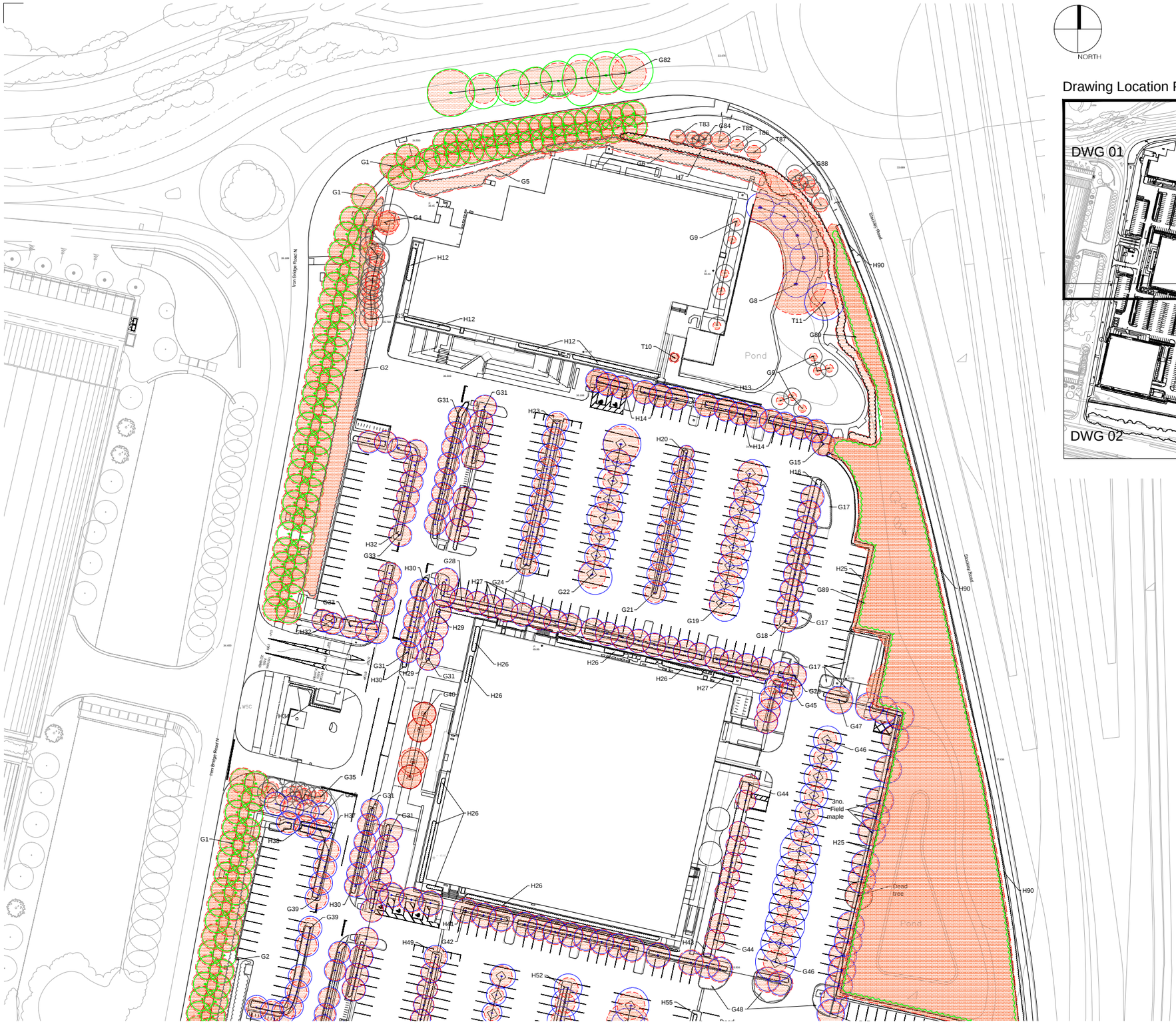
Values are rounded at 1 dB(A).

Plant	Picture	Lw in dB(A)	Octave sound levels in dB(A)								
			31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Rig E600 n°1 (S/N 5373), using R180 rotational table		**115.0**	64.5	81.5	95.0	104.5	111.5	109.0	104.5	100.5	90.0
SCHWING BP1800 (S/N 1010784) Concrete Pump		**106.0**	60.0	89.0	86.5	96.0	98.0	103.0	98.5	92.0	85.0
TAKEUCHI TB290 Loader (in stand-by)		**88.0**	48.0	66.0	70.0	81.0	83.0	82.0	78.5	73.0	63.5

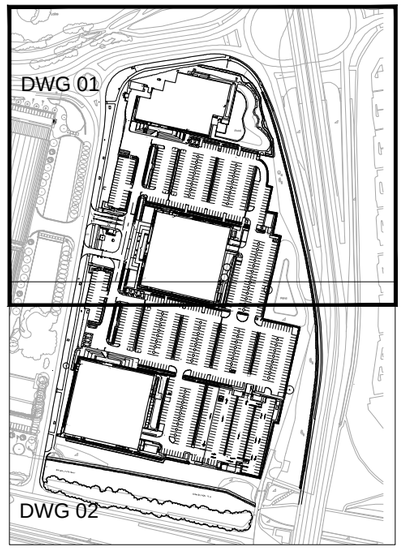
Comment:

- PPE wear is mandatory around the CMC plant (up to a distance of about 20m).
- The noisiest part of the rig is the power pack.
- The rotational table haven't a significant noise impact.
- During a drilling operation, the other equipment are negligible in terms of acoustic impact.

9.35 TPO – Tree protection



Drawing Location Plan



NOTES

REFER TO BB TREES LTD PRE DEVELOPMENT TREE SURVEY DATED **JULY 2019** AND GREENHATCH GROUP SURVEY ref. '33865_T' DATED JUNE 2019 FOR DETAILS OF EXISTING TREES.

THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH BS5837:2012.

Key

T193 — CATEGORY A (GREEN) TREES
Trees of high quality with an estimated remaining life expectancy of at least 40 years

T20 — CATEGORY B (BLUE) TREES
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

T13 — CATEGORY C (GREY) TREES
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm

T8 — CATEGORY U (RED) TREES
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

G8 — Refers to groups of trees

H120 — Refers to hedges

Site Boundary

ROOT PROTECTION ZONE: Area of hatching around protected trees indicates the minimum Root Protection Area required in accordance with BB TREES Pre-development Tree survey dated July 2019.

REV	REV NOTE	DATE	AUTH
A	Minor drawing updates	15-04-20	MAB

BCA BARRY CHINN associates Landscape Architects

PROLOGIS®

PROJECT
FORMER GSK SITE,
PROLOGIS PARK,
WEST LONDON

DRAWING
TREE CONSTRAINTS PLAN
Sheet 1 of 2

CONTRACT 1982-19			DRG NO. 01
DATE 08-08-19		DRAWN HC	
ISSUE Planning		CHECKED MAB	
SCALE 1:500		ORIG SHEET A1	REV A
CAD FILE 1982-19-01+02-Tree-Constraints-Plan.dwg			

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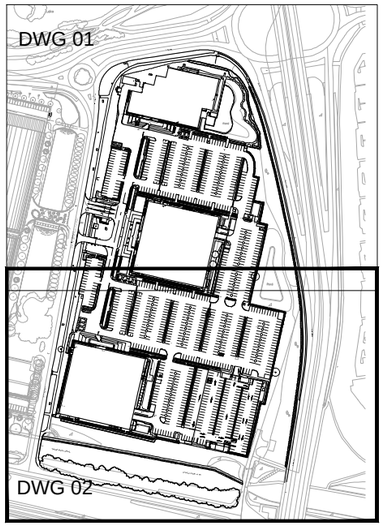
Drawing Location Plan

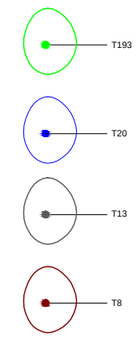


NOTES

REFER TO BB TREES LTD PRE DEVELOPMENT TREE SURVEY DATED **JULY 201** AND GREENHATCH GROUP SURVEY ref. '33865_T' DATED JUNE 2019 FOR DETAILS OF EXISTING TREES.

THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH BS5837:2012.

Key



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Trees of high quality with an estimated remainin life expectancy of at least 40 years

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Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

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Refers to groups of trees

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Site Boundary

ROOT PROTECTION ZONE: Area of hatching around protected trees indicates the minimum Root Protection Area required in accordance with BB TREES Pre-development Tree survey dated July 2019.

REV A	Minor drawing updates	15-04-20 MAB
REV NOTE		DATE AUTH

BCA BARRY CHINN associates Landscape Architects

PROLOGIS®

PROJECT

FORMER GSK SITE,
PROLOGIS PARK,
WEST LONDON

DRAWING

TREE CONSTRAINTS PLAN
Sheet 2 of 2

CONTRACT 1982-19			DRG NO. 02
DATE 08-08-19		DRAWN HC	
ISSUE Planning		CHECKED MAB	
SCALE 1:500		ORIG SHEET A1	REV A
CAD FILE 1982-19-01+02-Tree-Constraints-Plan.dwg			

Barry Chinn Associates Limited: Harbury Road, Deppers Bridge, Southam, Warwickshire CV47 2SZ
T +44 (0)1926 614031 F +44 (0)1926 614433 E gen@bca-landscape.com W www.bca-landscape.com

NORTH

NOTES

THIS DRAWING IS BASED ON FOLLOWING DOCUMENTS:

- BCA LANDSCAPE ARCHITECTS TREE SURVEY DRG.NO. 1982-19-01+02

REFER TO BB TREES LTD PRE -DEVELOPMENT TREE SURVEY DATED AUGUST 2019 FOR DETAILS OF EXISTING TREES.

TREE LOCATIONS SHOWN ARE BASED ON INFORMATION PROVIDED BY GREENHATCH GROUP SURVEY REF. '33855_T' DATED JUNE 2019
THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH BS5837:2012.

KEY

ROOT PROTECTION ZONE: Area of hatching around protected trees indicates the minimum Root Protection Area required in accordance with BB Trees Ltd Arboricutural Analysis dated August 2019.

PROTECTIVE BARRIER: Existing trees to be retained shall be protected by protective barrier erected in accordance with the specification figure 2 of BS5837:2012. Barrier to be erected on the edge of the root protection area for each tree to be protected. To be erected prior to the commencement of any construction works on site.

T13 EXISTING TREES TO BE TO BE RETAINED AND PROTECTED AS PART OF THE PROPOSALS

EXISTING TREES TO BE REMOVED AS PART OF THE DEVELOPMENT

PROPOSED BUILT DEVELOPMENT

SITE BOUNDARY

UNIT 1

UNIT 2

H90 H90 H90 H90 H90 G89 G100 G100 G88 T87 T86 T85 G84 H7 T83 G82 G98 T96 G95 T93 T94 T92 G1 G1 G1 G1 G1

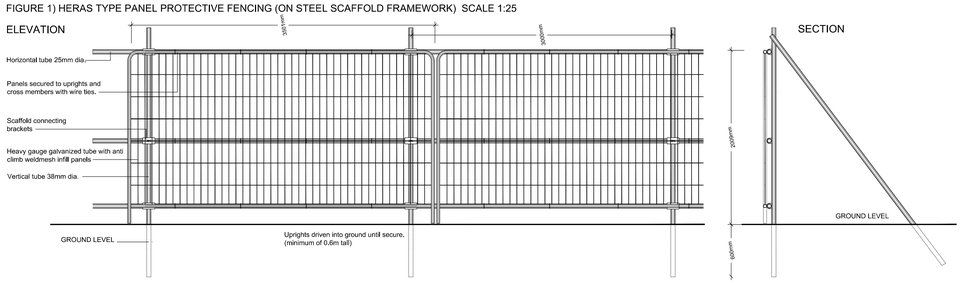
GRAND UNION CANAL

IRON BRIDGE ROAD

IRON BRIDGE ROAD

Jaspers Daily Nursery

FIGURE 1) HERAS TYPE PANEL PROTECTIVE FENCING (ON STEEL SCAFFOLD FRAMEWORK) SCALE 1:25



PROTECTION OF EXISTING TREES: GENERAL REQUIREMENTS
In compliance with good practice, during all design and construction works and in accordance with BS5837 (2012) "Trees in relation to design, demolition and construction - recomendations" and BS3998 (2010) "Recommendations for Tree Work", the following precautions must be considered to avoid damage to trees:

- Site construction access;
- The intensity of and nature of construction activity;
- Contractors car parking over the root system;
- Phasing of construction works;
- The space needed for foundation excavations and construction work;
- The availability of special construction techniques.
- The location and space needed for all temporary and permanent apparatus and service runs, including foul and surface water drains, land drains, soakaways, gas, oil, water, electricit, telephone, television or other comunication cables.
- All changes in ground level, including the location of retaining walls, steps and making adequate allowance for foundations of such walls or steps/infill.
- Working space for cranes, plant scaffolding and access during work;
- Space for site huts, temporary toilet facilities (including their drainage) and other temporary structures;
- The type and extent of landscape works which will be needed within the protected areas, and the effects these will have on the root system;
- Space for storing (whether temporary or long term) materials, spoil and fuel and the mixing of cement and concrete shall be stored a minimum of 10m from all trees;
- The effects of slope on the movement of potentially harmfull liquid spillages towards or into protected areas;
- No traffic over the root system;
- No soil, debris or building material to be deposited against the trunk of a tree;
- No fires to be lit below branches. No generators or static machinery to be operated below branches;
- No cutting of branches or roots except by a specialist firm;
- No trees to be used as an anchor for winching purposes;
- Dead, diseased and dying branches will be removed from trees being retained;
- Where necessary tree crowns will be thinned to reduce weight and improve shape;
- Ground levels within the minimum RPA of trees will not be raised;
- No site/signage boards, fixtures, cables or any other services shall be attached to a tree;
- Tree Surgery work to trees to be retained, will be carried following advice from a qualified arboriculturist.

SPECIFICATION FOR FENCING:-
All trees to be retained on site shall be protected by Heras type panel fencing (2m high) affixed to scaffold pole framework in accordance with the requirements of BS5837:2012 as shown. The location of the protective fence to be in accordance with the details contained on BCA drawing 1982/19-03 - 'Tree Retention, Protection and Removal Plan'.

The protective fencing shall be erected before any machinery or materials are brought onto site and before any demolition and or development commences. No construction works, excavation, or ground alterations shall be carried out within the protected area.

The protective fencing shall not be removed, or its line altered, without prior agreement. The protective fencing shall be maintained for the duration of all construction works. Care should be exercised when using cranes or similar equipment in vicinity of the tree to avoid damage to the tree canopy.

The objective of the protective fencing is to protect as large an area around the trees as possible in order to minimise the risk of damage to trees during construction. However if, after consideration of all alternatives, it proves essential for construction, excavation or service trench works need to be carried out within the defined protected area around the tree, specialist design advice shall be sought from the contract supervisor who will consult an Arboricultural Consultant / Engineer to minimise disturbance to the tree and its root system.

HERAS TYPE PANEL PROTECTIVE FENCING
TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF BS5837:2012
2000mm high to be installed in the location indicated on plan. Signage is to be fixed to the protective fencing to deter access within protective zone. Fencing is to remain in place and be maintained throughout the contract period.

Within protected areas:
Existing soil levels shall remain undisturbed and any works required shall be carried out only by hand, under supervision of arboriculturalist. All haulage routes and contractors compounds, storage facilities etc shall be kept outside the protected areas.

REV		
REV A	General updates across the site	15-06-20 MAB
REV NOTE		DATE AUTH

BARRY CHINN associates
Landscape Architects

PROLOGIS®

PROJECT
FORMER GSK SITE,
PROLOGIS PARK,
WEST LONDON

DRAWING
TREE RETENTION, PROTECTION AND REMOVAL PLAN

CONTRACT	1982-19			DRG NO. 04
DATE	12-02-20	DRAWN	MAB	
ISSUE	Planning	CHECKED	MAB	
SCALE	1:500	ORIG SHEET	A0	REV A
CAD FILE	1982-19-03.dwg			

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NOTES:

SUBJECT TO STATUTORY CONSENTS

BASED ON GREENHATCH SURVEY
REF: 33865_T REV 0
DATED: 24.06.19

N

2.4m HIGH PALADIN FENCE
COLOUR: GREEN

2.4m HIGH TIMBER ACOUSTIC FENCE

1.1m HIGH TIMBER POST & RAIL FENCE

VEHICLE BARRIER

STOCKLEY RD

EXISTING BALANCING ALTERED

GATE

2.4m high Paladin Fence

bin store

Gravel

30m

11 No DOCK LEVELLERS

50m

FIRE BRIGADE ACCESS ROUTE

Green Roof

AMENITY AREA

BICYCLE RACKS (27 hoops - 54 spaces)

M/CYCLES

turning area

transformer

2 STOREY OFFICES ABOVE GROUND

UNIT 2 (DC6)

15m CLEAR INTERNAL HEIGHT

RMU & gas meter

Pedestrian & Cycle Access

"green wall"

95 CAR SPACES
(80% active 80% passive EVCPs)

EXISTING TREES RETAINED

Timber post & rail fence

CAR PARK BARRIER

FIRE ACCESS

PROPOSED TREES

IRONBRIDGE ROAD

HORTON RD

Day Nursery

UNIT 1 (DC5)

15m CLEAR INTERNAL HEIGHT

7.3m

2.4m high timber acoustic fence

Gravel

59.1m

60m

16 No DOCK LEVELLERS

Retaining wall (shown dashed)

59.4m

GATE

2.4m high Paladin Fence

FIRE ACCESS

M/CYCLES

transformer

AMENITY AREA

Green Roof

122 CAR SPACES
(20% active 80% passive EVCPs)

RMU & gas meter

GATE

GAS HOUSE

0 5 10 20 50m

01 40006 FENCING PLAN
1:500

PRELIMINARY

REV	DATE	NOTE	DRAW	CHCK
P01	18.05.22	Preliminary Issue.	MK	SD

MICHAEL SPARKS ASSOCIATES
CHARTERED ARCHITECTS
11 PLATO PLACE
ST.DIONIS ROAD
LONDON SW6 4TU
TELEPHONE 020 7736 6162
www.MSA-ARCHITECTS.CO.UK

PROLOGIS

TITLE
IRONBRIDGE ROAD, HAYES

DRAWING
FENCING PLAN

CLIENT
PROLOGIS UK LTD

DATE	SCALE	DRAWN
MAY 2022	1:500 @ A0	SD
MSA NUMBER	STATUS	CHECKED
30928	PRELIMINARY	
DRAWING NUMBER		REVISION
GB000694-MSA-DC5-00-DR-A-40006		P01

9.36 London Plan

Redevelopment of site to provide two industrial units providing floorspace (Use Class B1c/B2/B8) and ancillary offices together with associated parking, access arrangements. Landscaping and infrastructure which comply with the London Plan 2021.

9.37 Persons responsible for the management, control and implementation of health and safety duties for the project:

APPOINTMENT OF SITE RESPONSIBILITIES

Contract: Phase II Prologis Park West London,1-3 Iron Bridge Road Contract No: P21 – 051 Date: Rev. No.

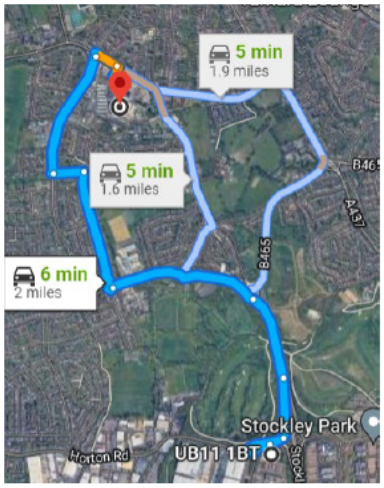
DESCRIPTION	PERSON RESPONSIBLE	DEPUTY IN CASE OF ASBSENCE	Signature of person accepting responsibility
Project Manager	**RICHARD REID**	**TOMMY BARNES**	
Site Manager	CRISTIAN PRUTEANU		
Supervisor	RICHARD REID	TOMMY BARNES	
Senior Site Engineer	TOMMY BARNES	DAWID STARZYNSKI	
Site Engineer	DAWID STARZYNSKI	TOMMY BARNES	
Temporary Works Co-ordinator	TOMMY BARNES		
HSEQ Manager	TREVOR SWAILES	MARTIN LAW	
Review and Update Construction Phase and Environmental Plan	TREVOR SWAILES	MARTIN LAW	
Prepare Site Waste Management Plan / Waste Management File	RICHARD REID	CRISTIAN PRUTEANU	
Review Risk Assessments / Method Statements (S05)	RICHARD REID	CRISTIAN PRUTEANU	
Authorised to Issue each permit: - Permit to Break ground Hot Works Permit Permit to Operate Crane Permit to work at Height Overhead Cable Permit	TOMMY BARNES CRISTIAN PRUTEANU	DAWID STARZYNSKI TOMMY BARNES	
Prepare & Review Emergency Response Plans	RICHARD REID	CRISTIAN PRUTEANU	
Produce & Review Hazardous Materials / COSHH Register	RICHARD REID	CRISTIAN PRUTEANU	
Produce & Review Noise Register	RICHARD REID	CRISTIAN PRUTEANU	
Review of traffic management	RICHARD REID	CRISTIAN PRUTEANU	
Protection of the public, maintenance of protective controls, signage, fencing, coordination with banksmen etc. particularly in regard to footpaths etc.	TOMMY BARNES	DAWID STARZYNSKI	
Carry Out & Record Site Inductions	CRISTIAN PRUTEANU	TOMMY BARNES	
Obtain evidence of competency of personnel, plant and equipment of thorough examination, maintenance and calibration evidence for all plant and equipment	CRISTIAN PRUTEANU	TOMMY BARNES	

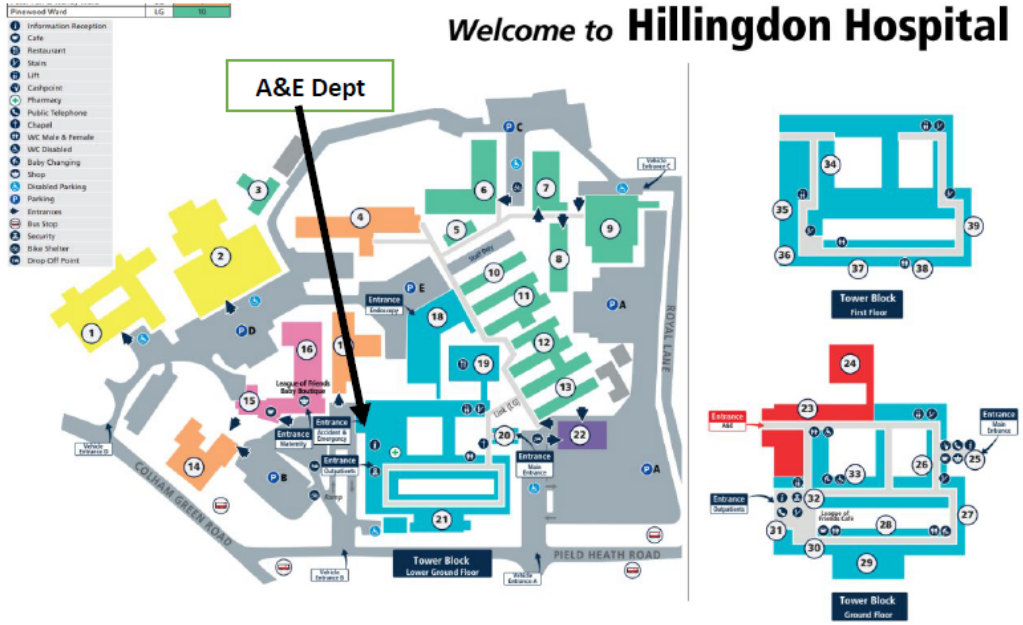
Inspect plant and authorise operators on site	CRISTIAN PRUTEANU	TOMMY BARNES	
Carry out & record plant inspections	CRISTIAN PRUTEANU	TOMMY BARNES	
Carry out workplace weekly inspections	TOMMY BARNES	CRISTIAN PRUTEANU	
Deliver toolbox talks	CRISTIAN PRUTEANU	TOMMY BARNES	
Carry out monthly HSEQ monitoring	RICHARD REID	CRISTIAN PRUTEANU	
Provide first aid treatment	TOMMY BARNES	CRISTIAN PRUTEANU	
Record accident / incident details	TOMMY BANES	CRISTIAN PRUTEANU	
Carry out incident investigations	TREVOR SWAILES	MARTIN LAW	
Fire Co-ordinator	TOMMY BARNES	CRISTIAN PRUTEANU	
Fire Warden	TOMMY BARNES	CRISTIAN PRUTEANU	
Prepare & Review Fire Safety Plan	RICHARD REID	CRISTIAN PRUTEANU	
Carry out Weekly Fire Inspections	TOMMY BARNES	CRISTIAN PRUTEANU	
Working with and near existing services– For Underground Services guidance refer to HSG 47 as required.	TOMMY BARNES	TOMMY BARNES	
Cleanliness and acceptability of the surrounding roads and paths etc. Avoidance of dust and debris onto adjacent properties, roads and highways.	TOMMY BARNES	DAWID STARZYNSKI	
Carry out and record excavation inspections	TOMMY BARNES	DAWID STARZYNSKI	

Carry out and record scaffold inspections	RICHARD REID	CRISTAIN PRUTEANU	
Carry out and record lifting equipment inspections	CRISTIAN PRUTEANU	TOMMY BARNES	
Carry out & record daily briefings	RICAHRD REID	TOMMY BARNES	

Display copy on site notice board and file a copy in the Construction Phase Plan.

LOCAL A&E ROUTE MAP- HILLINGDON HOSPITAL





Address: Pield Heath Rd,
Uxbridge
UB8 3NN

Tel no: 01895 238 282

Approximate Driving time: 6 Minutes

Direction from Site

- Take A408 to Apple Tree Ave
  2 min (1.0 mi)
- Continue on Apple Tree Ave. Take Royal Ln to Pield Heath Rd in Uxbridge
  3 min (0.8 mi)
- At the roundabout, take the 3rd exit onto Pield Heath Rd
  24 s (446 ft)
- Turn right at Crispin Way
  28 s (184 ft)

Hillingdon Hospital
Pield Heath Rd, Uxbridge UB8 3NN

11. Fire Plan – Please refer to WP15

Project: **Phase II Prologis Park West London,1-3 Iron Bridge Road**

Site Fire Safety Coordinator	-	RICHARD REID
Deputy Site Fire Safety Coordinator	-	TOMMY BARNES

1. General Precautions (see marked up drawing)
   All site personnel to be advised of escape routes and firefighting equipment by the marked-up drawings posed on the fire points on each floor of the building. All welding, soldering etc. to be covered by issue of a Hot Works Permit detailing any specific precautionary measures.

2. Action in case of fire
   (see attached poster)

3. Hot Work Permit
   A Hot Work Permit must be issued to cover all operations using flames and/or volatile materials, such as welding, soldering etc.

4. Fire Escape Routes
   See marked up layout drawing.

5. Security Measures
   Ensure fencing is complete and intact, ensure security guard monitors area for potential arsonists.

6. Material Storage and Waste Management
   Ensure materials are stored neatly on site and all waste cleared away regularly before it can accumulate. Special precautions for storage of gas, LPG, etc. to be detailed on Hot Works Permit.

7. Inspection
   Compliance with the above will be checked and recorded by our HSEQ team by using S44 Workplace Fire Inspection Log.

WP15 Emergency Arrangements
FP01 Fire Safety Management Plan
FP02 Fire Action Poster
FP03 Fire Marshals Poster
S44 Workplace Fire Inspection Log
S44a Record of Fire Evacuation and Details
S44b Record of Emergency Services Liaison

FP02

FIRE ACTION

ON DISCOVERING A FIRE

1. Operate nearest fire alarm / bell. Dial the Fire Brigade — 999

Winvic Construction Ltd,
Phase II Prologis Park West London,1-3
Iron Bridge Road North ,West London
UB11 1BT

2. Tackle the fire if safe to do so and you are trained to use fire extinguishers.
(do not endanger yourself or others in doing so)

ON HEARING THE FIRE ALARM

3. Leave the building by the nearest available fire exit

4. Report to the person in charge at the assembly point at:

RICHARD REID & TOMMY BARNES

5. DO NOT stop to collect personal belongings
6. DO NOT use a lift or passenger hoist
7. DO NOT re-enter until you are told it is safe to do so

winvic FP03

Fire Marshals are:

Name: TOMMY BARNES

Tele: 077956 068 331

Name:

Tele:

Name:

Tele:

DOING IT RIGHT.

EMERGENCY PLAN

1. CALL EMERGENCY SERVICES 999

1.1 Give details of scale of the accident/incident, exact details of the location and access reference point.

1.2 Arrange to meet the emergency services at entrance to site and escort them to the location of the accident/incident.

1.3 The First Aider is to administer first aid until the emergency services arrive.

1.4 Maintain contact with Contract/Project Manager.

2. CALL PUBLIC SERVICES

GAS Tel No: 0800 111 999	**ENVIRONMENT AGENCY.** Tel No: 0800 807 060
ELECTRICITY Tel No: 0800 056 8090	**BRITISH TELECOM.** Tel No: 0800 800 865
WATER Tel No: 0800 783 4444	**HEALTH & SAFETY EXECUTIVE.** Tel No: Via HSE Manager
EMERGENCY RESPONSE - CSG (Cleansing Service Group) 24 hrs 0800 587 3133	

2.1 Give details of location access reference point.

2.2 Keep non - essential personnel clear.

2.3 Isolate the service if possible, to do so **Safely.**

2.4 Check with ambulance service which hospital casualties will be taken.

3. NOTIFY SENIOR MANAGEMENT

3.1 Operations Manager – DAVE ROBERTS – 07525 907 511

3.2 Project Manager - RICHARD REID - 07725 791 288

3.3 HSEQ Director- **MARTIN LAW** **- 07541 688 094**

3.4 Principal Designer- RICK BREWER - 01636 605 700

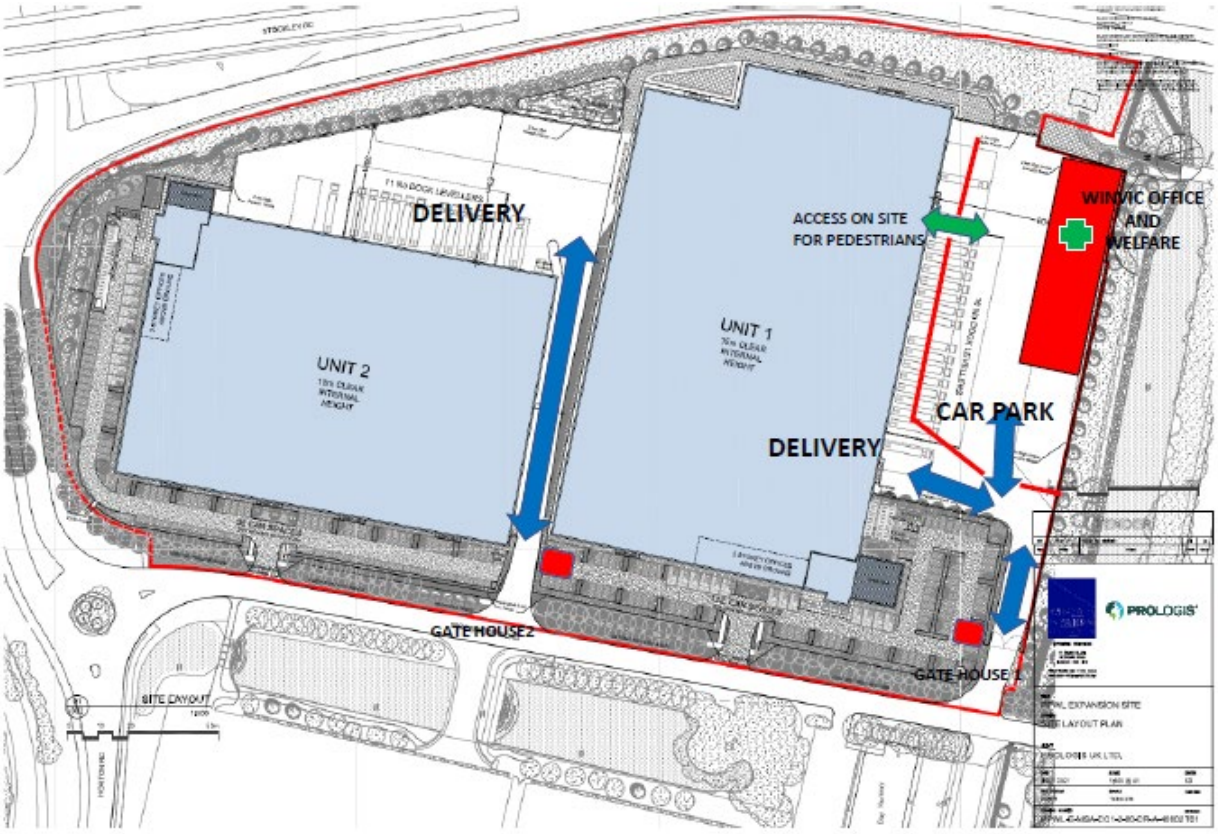
(NB: Phone Numbers Must be Inserted where Applicable)

A COPY OF THIS NOTICE MUST BE DISPLAYED ON SITE ONCE COMPLETED

12. Site Traffic Management Plan

A copy is also on display in the Induction Room on site. This plan is updated as the site progresses whenever required.

Traffic management –



Gate House 1 - Access for delivery and to the Welfare

Gate House 2 - Access for delivery

winvic

G44

SITE RULES

As a minimum standard on all Winvic sites, the following rules must be adhered to:-

- You must work in line with your risk assessment and method statement. If you can't do not carry out the work until you have spoken to your supervisor
- The minimum PPE Requirements on site are Protective footwear, hard hat and high vis
- If your RAMS state additional PPE is required you must wear it
- ALL site personnel and visitors MUST sign in with the Principal Contractor on ENTRY and EXIT
- NO food or drinks are to be consumed on site, canteen facilities are provided
- You must not work under the influence of alcohol or drugs
- The whole site is a NO SMOKING area, only smoke in designated areas
- Be aware of and comply with PERMITS TO WORK that may apply
- ISOLATE all power tools when not in use
- Keep all work areas as CLEAN as possible, remove all rubbish to the skips regularly
- Do not bring onto the site RADIOS/CD PLAYERS including headsets etc.
- Risk Assessments and Method Statements are to be complied with at all times

THESE SITE RULES ARE TO BE READ IN CONJUNCTION WITH THE SPECIFIC PROJECT SITES RULES

COVID-19 RULES

The following Covid-19 rules must be adhered to:-

- Keep to the social distancing guidelines at all times
- Do not come to work if you have any symptoms of Covid-19, are awaiting test results or have been told to self-isolate
- Use face coverings in communal areas
- Please observe the white hazard board for daily observations
- When using the site canteen keep to the social distancing rules
- Hand sanitiser is provided at the turnstiles, site offices and on site.
- Soap is provided in the toilets
- Wash your hands regularly
- Use the One Way system in the cabins where applicable
- Please ensure you use the Test and Trace when visiting canteen areas
- If using the smoking shelter please ensure social distancing is maintained

FIRE EMERGENCY

On hearing the fire Alarm:

- All personnel to leave the building and assemble at the muster point.
- Do not stop to collect personal belongings.
- Turn off all heat producing equipment.
- Obey instructions from Site Fire Safety Coordinator.
- Attack fire with the equipment provided if it is safe to do so.
- Do not re-enter site until told it is safe to do so.

Smoking:

For the safety and comfort of everyone, smoking is not permitted within the site. Please only use the designated smoking areas.

First Aid:

Should such a situation arise then site management will ensure treatment is provided by a qualified first aider or the emergency services.

GENERAL RULES

Reporting of Incidents/Hazards:

If you have an incident whilst on site please report it immediately to your host or a member of the site team, who will contact a first aider and a member of the management team

Mandatory P.P.E to be worn on site
(Other P.P.E maybe required by individual risk assessments):

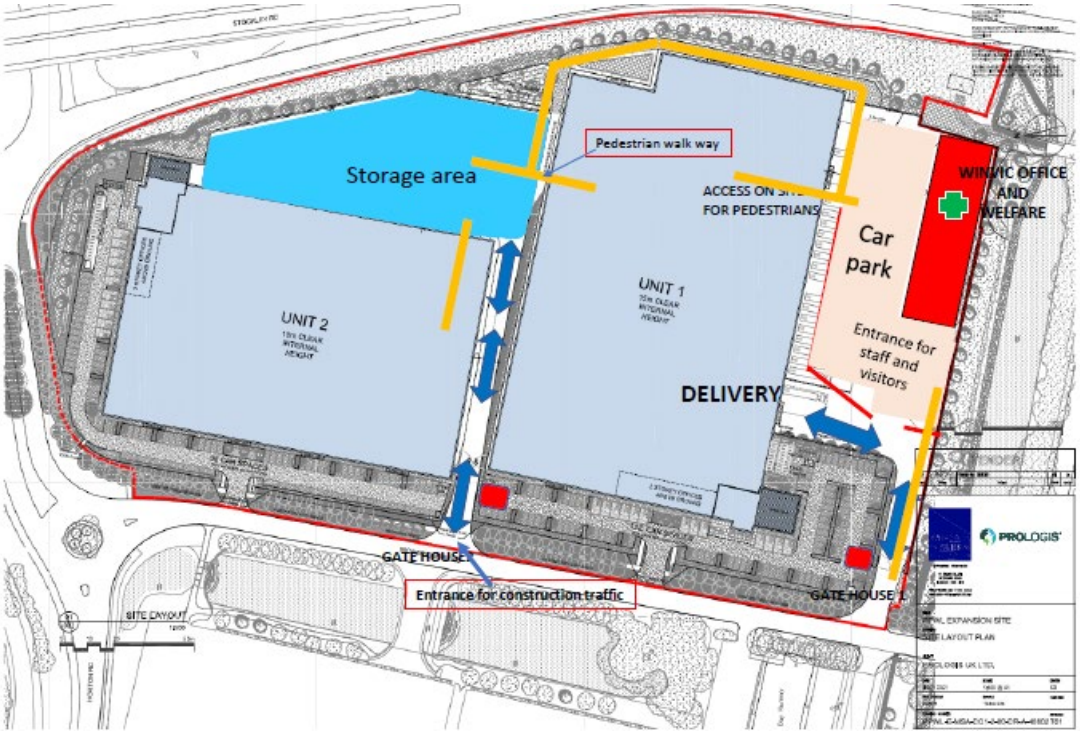
winvic
DOING IT RIGHT.

14. Site Layout Plan

Site Office clearly signed.

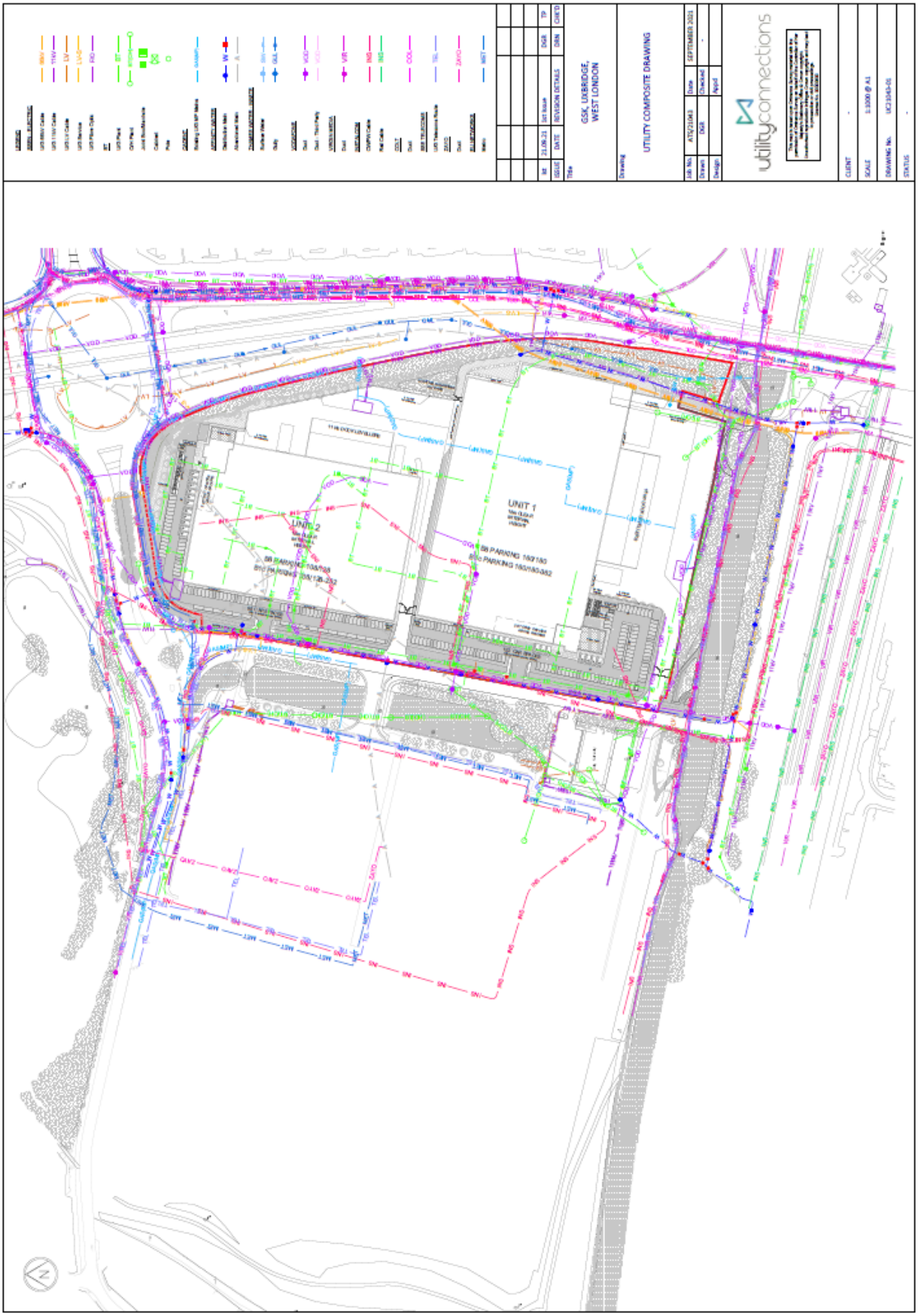
- Pedestrian route indicated on site compound layout and fenced off on site.
- All visitors will also have a Visitors Induction before they can go onto the site and must be accompanied by a Winvic representative.

Site car parking is for Winvic Construction Limited site management, visitors and contractors located within the site boundary in a designated area. Parking on site will be limited therefore assessed during the construction period and alternative arrangements made if necessary.



15. Existing Services Plan

Underground services –



16. Safety Inspection Reports

Reports are held electronically on the WCL Union Square document management system.

17. Health and Safety Forms

Reference	Title	To be Used Yes or No
S01	HSEQ Inspection and 4 Weekly Plan	YES
S02	Record of Site Induction	YES
S03	Client Management/Visitor Contract Safety Instructions	YES
S04	Method Statement Briefing Attendance	YES
S05	Method Statement Review Sheet	YES
S06	Method Statement Register	YES
S07	Permit to Enter	YES
S08	Permit to Break Ground	YES
S09	Permit to Operate Crane	YES
S10	Hot Works Permit	YES
S11	Noise Assessment	YES
S12	PPE Register	YES
S13	PUWER Register	YES
S15	Permit To Work at Height	YES
S16	Site Induction Register	YES
S18	Work at Height Regulations 2005	YES
S19	Work Equipment Inspections	YES
S20	Inspection of Excavations	YES
S21	Young Persons Induction	YES
S23	Display Screen Equipment Assessment	YES
S24	Expectant Mothers Risk Assessment	YES
S25	H&S Planning Meeting Agenda	YES
S29	Risk Assessment Form	YES
S30	Winvic Incident Reporting	YES
S31	Hazard Identification Form	YES
S34	Manual Handling Assessment Form	YES
S36	Utility Strike Report	YES
S40	Fire Risk Assessment	YES
S44	Workplace Fire Inspection Log	YES
S45	Small Works Plan	YES
S46	Letter of Appointment TWS	YES
S47	Letter of Appointment TWC	YES
S48	Temporary Works Register	YES
S49	Overhead Cable Permit	YES
S50	TW Design Brief	YES
S51	Daily Vehicle Inspection Checklist	YES
S52	Permit Register	YES
S60	TW Permit to Load / unload	YES
S61	Scaffold Design Brief	YES
S62	Witness Statement	YES
S63	Telehandler Daily Inspection	YES
S64	Covid-19 Site Operating Procedures	YES
S68	Site Safety Supervisor / Managers HSEQ Induction	YES

18. Site Quality Plan:

In addition to the requirements of the Winvic Quality System, the following items have been identified as requiring additional attention to ensure quality standards are met.

Insert Q23.

Reference	Title	To be Used Yes or No
Q01	Quality Policy	YES
Q23	Quality Plan	Mandatory
Q27	Survey Control Register	YES
Q28	Inspection Check Sheet	YES
Q29	Drainage and Inspection Sheet	YES
Q32	Structural Concrete Inspection	YES
Q33	Concrete Slab Inspection	YES
Q35	Site Instrument Control Register	YES
Q36	Sub-contractor Progress Review Meeting	YES
Q37	Daily Site Diary Record	YES
Q38	Quality Inspection Record	YES
Q39	Post Construction Defect Notification Form	YES
Q40	Room Inspection/Snag Form	YES
Q42	Snagging	YES
Q43	~~Office Planned Inspection and Maintenance~~	~~NO~~
Q44	O&M Tracker	Mandatory
Q47	Material Procurement	YES
Q48	Material Tracking	YES
Q49	Practical Completion Checklist	YES
Q50	Contractor's Report Template	YES
Q51	Building Control Inspection Record Template	YES
Q56	Multi-Room Inspection Handover Template	YES
Q57	Project Commercial Summary Review	YES
Q58	Project Delivery Agenda	YES
Q59	Training Audit Checklist	YES
QM90	Quality ITP Substructures	YES
QM91	Quality ITP Ground Floor Slabs	YES
QM92	Quality ITP Upper Floor Slabs	YES
QM93	Quality ITP Internal Finishes	YES
QM94	Column and Wall Inspection and Test Plan	YES

19. Project Environmental Plan:

In addition to the requirements of the Winvic Environmental Management System, the following have been identified as significant environmental risks: -

Reference	Title	To be Used Yes or No
E03	Pre-Start Environmental Site Visit Checklist	Mandatory
E06	Environmental Aspect and Impact Register	Mandatory
E07	Construction Environmental Management Plan	Mandatory
SWMP01	Site Waste Management Plan	Mandatory
EG02	Env Guidance working near water	Mandatory
EG09	Env Guidance pumping standing water and excavation	Mandatory
EG10	Env Guidance concrete washout water	Mandatory
EG12	Env Guidance waste management	Mandatory
EG07	Env Guidance Road sweep and vehicle wash water	Mandatory
EG04	Env Guidance chemical storage	Mandatory

Concrete wash outs will be established on site either via a lined skip or by constructing a double lined pit, segregated/secured with Heras type fencing and signage.

All these documents must be saved on Union Square and kept in the Environmental Site File (file 13).

20. Pre-start Environmental check list

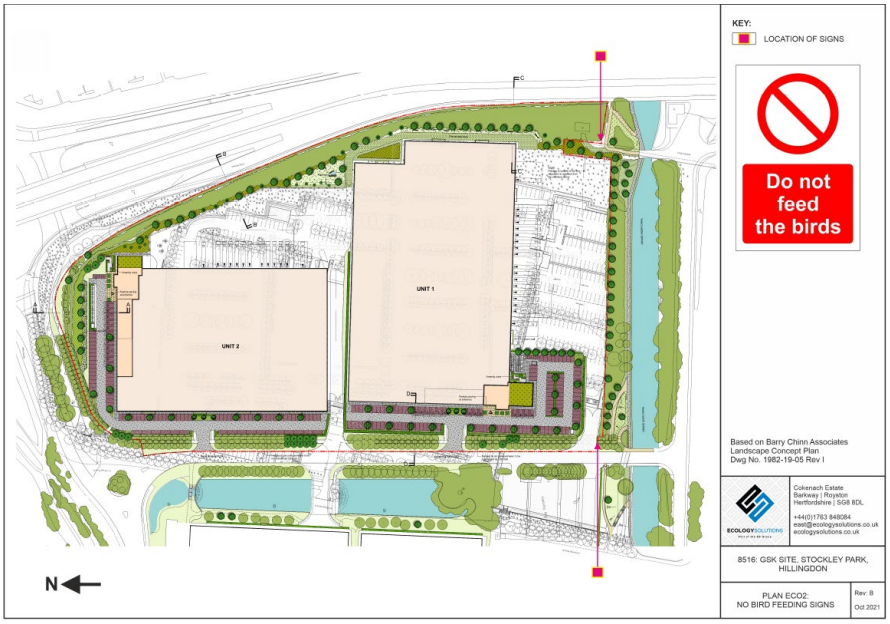
Project Name	Prologis GSK West London	Project No	P21-051
Completed By	B Anderson	Date	05/01/2021

SITE ASSESSMENT

General Site Description	Action
he Site is located close to Stockley Business Park. It is west of the A408 Stockley Road, to the south of Horton Road and accessed off Iron Bridge Road North. In a wider context, the Site is located to the north of Drayton Garden Village and Heathrow Airport. Stockley Golf Club grounds are located to the north of the Site, and to the south, the Site is bordered by the Grand Union Canal, Iron Bridge Road South and the Great Western Mainline railway line that runs from Reading to London Paddington. The Site currently includes three office buildings (use class B1(a)) with a combined GIA of approximately 28,000 m². The buildings are surrounded by surface level car parking, providing approximately 885 parking spaces, and a multi-storey car park in the south-eastern corner of the Site, with approximately 350 parking spaces. The site is also used as a park and shuttle bus facility for GSK employees to a second GSK office. The Site is bordered by trees and landscaping along each of the boundaries, helping to screen the Site from the surrounding highways. The proposed development includes the construction of two warehouse buildings with ancillary office space and external hardstanding for parking and vehicular access. Areas of soft landscaping will mainly be present at the Site's perimeter with a wider strip of soft landscaping and the expansion of the existing attenuation pond located to the east of the warehouse along with attenuation tanks in the south-east and north-western parts of the Site. 	None

Archaeology & Heritage

As per Savills Heritage Impact Assessment: The Site is located to the south-western section of the Grade II Registered Stockley Park (registered following submission of the planning application for the proposals). The significance of the Registered Park is derived from its historic interest through its planned nature and original principles for use of the land and the buildings within the business park which forms one of the three main areas of the Park. It also derives significance through its place in the early phases of business park development in England and its associative values with input of a multi-disciplinary team during the 1980s. The Park's architectural interest derives from the key buildings located to the east of Stockley Road, within Phase 1 of the Park, and their group value, as well as the contribution made by the designed landscaping seen across the business park and the relationship of built form with the verdant setting of the Park. The significance of the Registered Park is derived from all three parts of the Park (public park, golf course and business park) as a holistically designed entity in the 1980s.	**Ensure landscaping plan is followed to ensure minimal impact on heritage**
Permit Required?	*N*
Requires checking?	*N*

Ecology – protected species or INNS	
As per Bird Hazard Management Plan: The site is approximately 3.3 km north of Heathrow Airport, beyond the village of Sipson, the M4 motorway and the urban settlement of West Drayton. Planning has thus required a Bird Hazard Management plan be in place to reduce the risk of wildlife strikes in aviation. Water and waste to be managed as to not attract birds. 'No Bird Feeding' signs to be erected as per plan:  	**Discuss the erection of 'Do not feed the birds' signs with client to establish who is responsible. Should be in place pre-development**
As per Ecology Solutions Ecology Assessment: **Non-statutory Sites.** The site is immediately to the north of the Grand Union Canal, which forms part of London's Canals Site of Metropolitan Importance. Best practice measures for the construction industry would avoid any significant adverse effects, such as direct encroachment or pollution events. **Habitats.** The pond in the north of the site is man-made and fish were noted.	**Contact ecologist to move fish if pond is to be demolished** **Essure familiarisation**

The areas along the eastern and southern boundaries of the site are more semi-natural in character; the woodland is of greater ecological interest in the context of the site and the wider area, particularly given the proximity to the canal corridor. The Grand Union Canal, running parallel to the southern boundary of the site, designated as a Site of Metropolitan Importance as noted above, serves as an important habitat corridor for the local area. Where tree removal is required within the site, the trunks will be kept, cut up and arranged within the woodland / area adjacent to the attenuation basin in the east of the site to create log piles and hibernacula, creating basking opportunities, refuge and, as they rot, providing a foraging resource for reptiles and amphibians through encouraging invertebrates. **Invasive Species.** Cotoneaster has been identified on site and is categorised as an invasive species in London by the LISI. It is noted that the control of species listed under the LISI is not a legal requirement, but nonetheless where works are proposed within or close to the boundary vegetation all reasonable measures should be taken to prevent the spread of these plant species. Where vegetation is to be removed the material should be disposed of at an approved facility. **Bats.** New landscape planting based around native species and the addition of trees may encourage use of the site by bats through the provision of new foraging resources. The lighting scheme for the site will ensure that, subject to issues of public safety and security, the canal corridor is not lit to the detriment of bat species. This will be achieved through avoiding upward light spill. As a further enhancement it is proposed to install a series of bat boxes on retained trees within the site and, subject to agreement, on the canal interface. **Hedgehogs.** No evidence of Hedgehogs was recorded during the survey work undertaken. The retention and enhancement of the woodland would provide continued opportunities for commuting and foraging Hedgehogs, while the establishment of new native landscaping should improve the site's suitability for this species. 'Hedgehog Gateways' will be installed within the boundary fences to facilitate movement through the new development and ensure continued permeability. **Birds.** New planting based around native species would provide suitable nesting and foraging opportunities. As a further enhancement it is proposed to install a variety of bird nesting boxes on retained trees and new buildings within the site and, subject to agreement, on the canal interface, including for London Priority Species such as House Sparrow and Swift. During the site preparation phase, it is recommended that any suitable bird nesting habitat be cleared outside of the nesting season (typically March to July inclusive) to avoid a potential offence under the legislation. Where this cannot be achieved, a check survey for nesting birds should be undertaken by an ecologist, with any confirmed nests left in situ until the young have fledged.	**with landscaping plan and tree retention plan** **Tree protection barriers to be erected as per details below** **Cleared trees and vegetation should be placed as described** **Ensure Cottoneaster is not allowed to spread and disposed of correctly** **Bat boxes to be installed and lighting not to spill into retained trees** **Hedgehog gateways to be installed in boundary fences** **Vegetation Clearance outside of bird nesting season**
Permit Required?	*N*
Requires checking?	*N*

Ecology – trees

As per BCA Landscape and Visual Assessment:

Most of the existing vegetation around the periphery of the site will be retained and protected through the construction period in line with the recommendations in BS5837: Trees in relation to Design, Demolition and Construction.

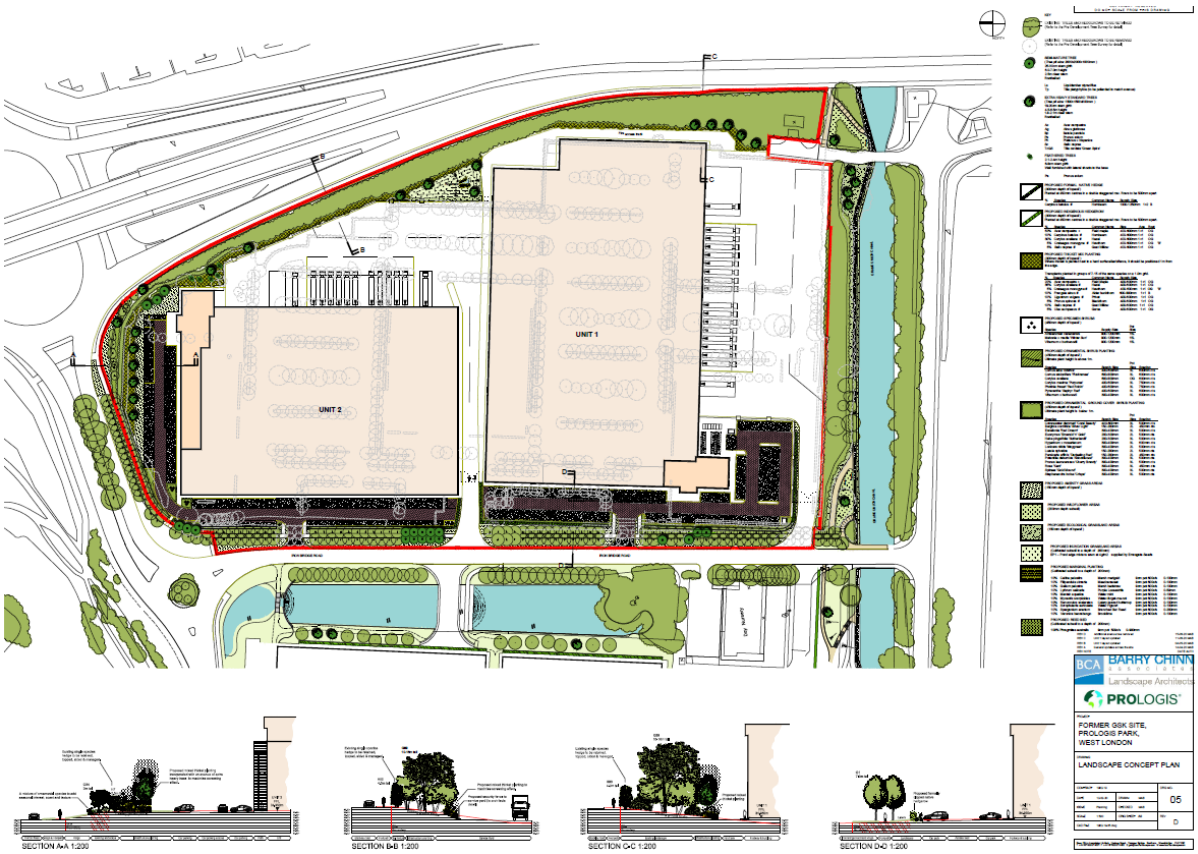
Tree group G1 running parallel to Iron Bridge Road is to be retained and infill planted where necessary to close up any gaps within the distinctive double tree avenue. Trees are up to 9m tall.

Group G98 with a height of 11m tall along the GUC boundary is to be retained and manged. This will serve to greatly reduce views of the proposed buildings from the residential properties to the south of the site.

Group G89 (within Green belt land) with a height of up to 16m tall along Stockley Road is to be retained and reinforced.

As per BCA Landscape Design Statement:

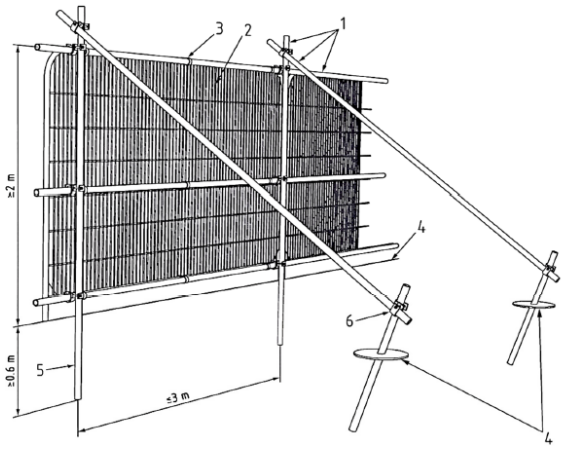
Due to the nature of the earthworks cut and fill operation to create large flat development platforms the vegetation retention is restricted to areas close to and along the boundaries of the site. Where existing trees and hedges are to be retained they will be protected in accordance with BS 5837:2012 – Trees in relation to design, demolition and construction – Recommendations. The protective fence will be fixed prior to commencement of the works and retained throughout the construction phase of the development.



As per Arboricult Impact Assessment:

Prior to the commencement of all construction related work on site, it will be necessary to have undertaken the agreed tree clearance along with any subsequent access facilitation pruning, allowing the erection of a robust, fit for purpose tree protection barrier to protect remaining trees and their secured root protection areas and/or structural landscaping zones from construction related activity.

The alignment of protection barriers is to accord with the Tree Retention, Removal and Protection Plan with offset dimensions being provided if necessary to assist with the marking out for the barrier installation. The default barrier is to accord with Figure 2 of BS5837:2012.



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

- This robust tree protection barrier is based upon a scaffold framework with diagonal bracing where necessary to ensure that the barrier remains fit for purpose.
- Once erected, the barrier must be considered sacrosanct and protected areas must not be subject to any form of development related activity, in particular excavation or any ground alterations.
- The protection barrier shall not be removed or the alignment altered or temporarily dismantled without the agreement of the project arboriculturalist and, where necessary, the consent of the local planning authority.
- At approximately 20m linear intervals waterproof signs are to be fixed to the barriers with wording facing the side of construction activity stating: Construction Exclusion Zone – Keep Out.
- The responsibility for monitoring the protection barriers and maintaining them in their appropriate fit for purpose condition throughout the course of the development must be clearly assigned to site management personnel.
- Sheet materials and/or wooden hoarding should not be attached to the barriers where this would hinder the monitoring of protection areas.
- When working beyond the barrier, consideration must be given towards activities that could indirectly affect the protected soil beyond. This includes the possible spillage of phytotoxic fluids including chemicals such as oils and fuels, and alkaline concrete/ mortar slurry.
- No fires should be lit within 10m of any tree protection barriers.
- Static internal combustion engines, such as those associated with generators or welfare facilities, should not be positioned so that their exhaust emissions are directed towards remaining trees.
- Although the location of temporary welfare buildings may be incorporated into the tree protection alignment, there must be no temporary service connections, both above and below ground, into the protected soil zone.

Permit / Licence required?	***N***
Requires checking?	***N***

Contaminated Land

As per WSP Geo-Environmental PRA
The main source of contamination on-site is considered to be landfilled material, residual contamination associated with the Underground Storage Tank (UST) leak and Made Ground associated with former buildings/ development and a historical piggery. The risk to Controlled Waters is considered to be moderate considering the age of the landfilled material.

Reference to relevant BGS map data and historical sources indicates that the Site is likely to be underlain by Made Ground including landfill material. Superficial deposits are anticipated to comprise the Lynch Hill Gravel Member (sand and gravel) over the majority of the site with the Langley Silt Member (clay and silt) along the south and eastern boundary. It should be noted that the majority of the Lynch Hill Gravel Member has been excavated and replaced with landfilling. The bedrock geology comprises the London Clay Formation (clay, silt and sand).

As per RPS Drainage Design Philosophy:
The following visual or olfactory evidence of contamination was recorded during the ground investigation:

- Strong hydrocarbon odour at 4.00m bgl within the Lynch Hill Gravel Member in BH02.
- Black leachate recorded between 3.00m and 4.00m bgl within made ground in WS04.
- Strong hydrocarbon odour and black staining between 2.40m and 2.75m bgl within the made ground in WS06
- Organic odours were recorded within made ground in BH02, WS04, WS06, WS08, WS12 and WS14.

As per WSP Remediation Strategy:
3 x 30,000 litre underground diesel storage tanks (USTs) are present on-site; one associated with each building to power back-up generators (located on the roofs). The USTs were linked via underground fuel lines to fuel risers that were installed up the external side of the buildings. The fill points are located adjacent to the USTs. The USTs were reportedly installed in the early 1990s and decommissioned in 2014, which comprised emptying the tanks of fuel and filling each with foam. Each backup generator was served by a dedicated above ground tank (AGTs), approximately 500 litres in capacity. Reportedly the AGTs were emptied at the same time as the USTs were decommissioned. It is unknown whether the ancillary fuel pipes have been decommissioned or foam filled.

Council records obtained by Ramboll Environ suggest remediation occurred on-site and the wider adjacent site from 1987 to 1988 involving the removal of 1,116,000 m3 of landfill material and the construction of in-ground clay barriers and leachate drainage.

Lead concentrations were recorded above the commercial GAC in three Made Ground samples and asbestos was detected in six Made Ground samples.

Asbestos fibres were identified by the testing laboratory within soil samples BH01, BH201B, CPT03, TP201, TP202 and WS02 at depths of between 0.40 to 2.00 m BGL. All positive samples were further scheduled for asbestos quantification with all results reported predominantly as <0.001 % except for WS02 which reported a result of 0.0123 %.

An Asbestos Management Plan will be required setting out how asbestos impacted soils will be managed during the construction works to protect construction workers and occupants of neighbouring land. The plan will set out control measures that will be implemented e.g. dust suppression, ambient air monitoring. Any removal of licensable asbestos activities will be undertaken in accordance with Control of Asbestos Regulations 2015 and by a Licenced Asbestos Contractor.

Care should be taken during tank removal. Suggestion to have a contingency plan in place for any unplanned contamination/ pollution

Remediation strategy and Remediation Implementation Plan to be followed. Materials to be tracked and Verification Report to be done (Ivy House has started an MMP)

Remediation strategy section 2.7.2 ground water risk to canal is low. No remediation to address risk.

Asbestos plan to be in place if elevated Asbestos levels are suspected

Testing regime must be implemented as per Remediation Strategy and Remediation Implementation Plan

RCL	Source	Aim / Requirements	Comments
RCL1	Free asbestos fibres in soil	Protection of construction works, future site users and adjacent site users	Control measures during excavation associated with drainage. Source remo arisings generated. During groundworks appropriate PPE/RP mitigation methods against the releas airborne asbestos fibres (including air monit are recommended. Provision of pathway break in soft lands areas.
RCL2	Metals in the Made Ground Soils	Protection of construction works, future site users and adjacent site users	Control measures in line with CDM Regul during localised earthworks and any excavation works such as the installati infrastructure. Provision of a pathway break in soft lands areas.
RCL	**Source**	**Aim / Requirements**	**Comments**
RCL3	Hydrocarbons associated with the 3 x USTs and other hydrocarbon hotspots on the Site	Protection of construction works, future site users and adjacent site users	Control measures in line with CDM regul during excavation works. Decommissioning and removal of USTs i with good practice. A watching brief by a suitably qualified p within the areas of the USTs during excav This includes validation of the sides and b the areas once the contaminated soils have removed. Some of the excavated soils require treatment or removal off-site. This can be undertaken during demolition or earthworks.
RCL4	Soil gases generated from Made Ground and infilled material on-site and off-site	Future and Current Site users New structures	Control measures during excavation work prevention of gas migration through the u suitable gas protection measures as a part proposed development. It is understood that earthworks are propos the Site, therefore, further ground gas and v monitoring is recommended post earthwo order to confirm the ground and vapou protection measures required.
RCL5	Aggressive contaminants (i.e. sulphate and hydrocarbons)	Protection of below ground construction materials including concrete and drainage pipes.	Assessment of concrete in aggressive g and potential requirement for barrier (subject to agreement with relevant sta authority).

Remediation Strategy in place?	***Y***
Materials Management Plan required?	***Y***
Requires checking?	***N***

Waste Management	
Waste storage areas are present to the east of Building 10, to the east of Building 11 and to the west of Building 9. Fly tipping reported on the southern tip of site (near the road) (as per ecology report) ***As per WSP Remediation Strategy***: The preliminary waste classification indicates that 4 of the 81 soil samples would be classified as 'Hazardous' for disposal and the remaining 77 soil samples are classified as non-hazardous for disposal. Asbestos was detected in seven soil samples at a maximum concentration of 0.0123% (WS02 at 1.00 m BGL) which is below the hazardous threshold of 0.1%. Asbestos was either not detected or recorded below the laboratory limit of quantification in the remaining soil samples analysed and no fragments of asbestos containing materials (ACM) were observed during the ground investigation. The site will be subjected to significant earthworks and as such a Materials Management Plan (MMP), in accordance with CL:AIRE Definition of Waste: Code of Practice or similar, should be implemented should site won material be required for reuse on-site and to minimise the quantity of material requiring off-site disposal. It is recommended that if disposal of Site materials is required, laboratory data should be provided to the waste receiver to confirm the final classification. The responsibility for classification of waste for disposal lies with the 'waste producer' and it will be their responsibility to agree the final classification and acceptability of the material for disposal with the receiving landfill. If materials cannot be retained on-site due to material balance or geotechnical suitability, it is suggested that 'non-hazardous' and 'hazardous' materials are retained on-site (assuming they present no ongoing or future risk to controlled water or human health) and 'inert' materials are removed from the Site to achieve a more cost-effective materials management solution. Infilled ground / landfill material was noted within the north-western part of the Site. This material encountered did not contain any landfill type materials however, the Made Ground in this area did contain anthropogenic materials such as wood and occasional plastic, glass, clinker, metal, bone, ceramic and ash. And infilled / landfill material generated is considered like to require sorted prior to re-use. If more bio-degradable material is encountered within areas not investigated during the Phase 1 and 2 ground investigation works, an assessment should be made on whether the material is suitable for use and an allowance should be made for off-site disposal, if required.	***Ensure fly-tipped waste and other waste on site are removed in accordance with regulations*** ***Ensure testing is done to ensure materials are disposed of in the correct manner***

Demolition / Crushing	
As per Demolition Plan (Collins): Collins shall subcontract the soft stripping works out to a 3rd party contractor (TBC). Collins shall subcontract the Remediation out to a 3rd party contractor (Portway). The buildings will be prepared for demolition by undertaking a soft strip to remove all internal fixtures, fittings and furnishings. As the soft stripping works proceed, all asbestos containing materials will be progressively stripped out (see asbestos section in plan for details on the presence of asbestos containing materials currently within the buildings to be demolished). **Hold Point:** Notification to the Principal Contractor that all fixtures, fittings and furnishings have been removed from the buildings to be demolished.	***Mobile crushing permit and deployment notice required for crushing and screening operations. Materials to be tracked as part of MMP***

Following the preparation works outlined above, Buildings B9, B10, B11 and the former multi-story car park will be demolished down to slab level. Materials arising from the demolition works shall be processed into separate waste streams and removed from site as the demolition works progress. Following demolition, Collins shall break out and remove the former ground slabs before excavating within the footprint of the former buildings to expose and remove all historic footings and foundations to 1.5m BGL. Collins understands that there are 3 No. below ground tanks located within the site boundary. These tanks have previously been decommissioned and foam filled and will be broken out and removed as part of the Contract Works. All site won materials arising from the works shall be processed into separate waste streams and removed from site as works progress. Where applicable, clean brickwork and concrete arisings will be crushed to a 6F2 specification and stockpiled within site boundary. All block paving will be harvested, processed and reused within the site as material for backfilling of excavations. All deleterious materials arising from the site will become the property of Collins and shall be removed from site.	
Permit required?	***Y***
Requires checking?	***N***

Watercourses	
As per WSP FRA: The Grand Union Canal is located approximately 20m from the southern boundary of the Site. There are also a number of ponds in close proximity to the Site, including two on the Site itself. Both ponds within the site boundary are unnamed and measure approximately 40m in length. According to the Geo-environmental assessment2, the pond located to the east of the Site is a SuDS feature, attenuating surface water runoff from the car park, whilst the pond in the north of the Site is for aesthetic purposes. A larger unnamed pond, approximately 200m in length, is present on the industrial park to the west of the Site, and a further unnamed pond is present within the southern boundary of Stockley Country Park to the north of the Site, measuring approximately 150m in length. The applicant is advised to review the Canal and River Trust's 'Code of Practice for Works affecting the Canal and River Trust and contact the Trust's Works Engineer (John.Pryer@canalrivertrust.org.uk) in order to ensure that any necessary consents are obtained and that the works are compliant. (https://canalrivertrust.org.uk/businessand-trade/undertaking-works-on-ourpropertyandour-code-of-practice). The applicant/developer is advised that any oversail, encroachment or access to the waterway requires written consent from the Canal & River Trust, and they should contact the Canal & River Trust regarding the required access agreement. The application site includes land over which the Trust has a freehold interest. The developer/applicant is advised to contact the Trust's Estates Team on 0303 040 4040 or email Bernadette.McNicholasa@canalrivertrust.org.uk in order to ensure that any necessary consents are obtained. The canal is not classed as a main river.	***Ensure communication with Canals and River Trust as per contact details to determine permissions, permits etc***
Permit required?	***TBC***

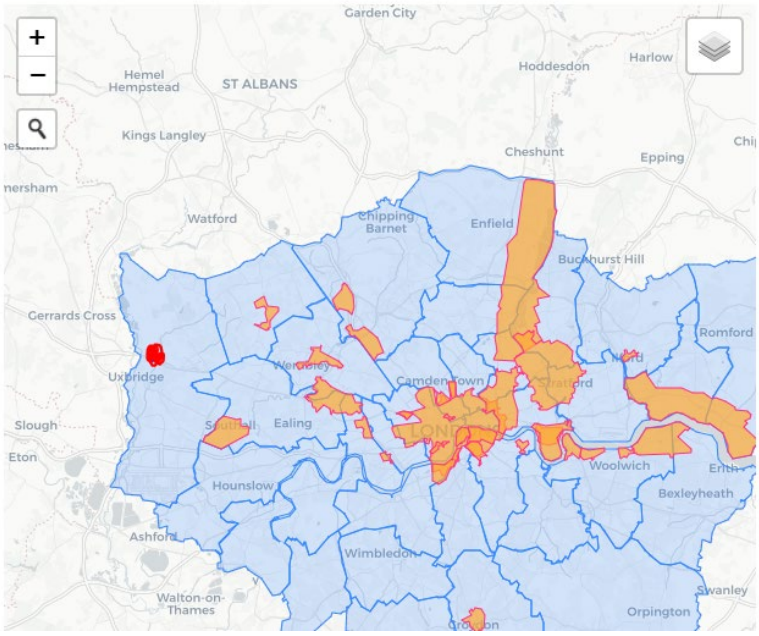
Water Management	
As per WSP Geo-Environmental PRA The superficial deposits underlying the Site are designated as a Principal Aquifer by the EA. The London Clay is designated as Unproductive Strata. The Site is therefore located in a moderate sensitivity environmental setting with regards to groundwater pollution. ***As per WSP FRA:*** British Geological Survey (BGS) maps1) indicate that Site is underlain by bedrock of London Clay Formation – Clay, Silt and Sand. Superficial deposits are also present across the entire Site, with the Lynch Hill Gravel Member - Sand and Gravel, present across the majority of the Site. A small amount of the Langley Silt Member – Clay and Silt, is present in the south eastern corner of the Site ***As per WSP Remediation Strategy:*** Based on the groundwater monitoring results obtained during the ground investigation works, it is considered possible that the water within excavations may require treatment prior to discharge. This should be considered as a part of the proposed development. If visual / olfactory evidence of contamination is identified during the works, the environmental consultant shall be informed and a sample will be obtained for testing in order to assess the risks associated with contamination within the groundwater.	***Clay anticipated; Flocculants likely required. Permit required to use flocculants. Consult suppliers (Frog, Kelly, Siltbuster, RVT etc)*** ***Likely contaminated groundwater to be treated before discharge or to be disposed of to a licenced facility. Possibly consult RPS if water treatment is required***
Permit required?	***Y***
Requires checking?	**Y**

Flooding	
As per WSP FRA: The Site is wholly located in Flood Zone 1, according to the Environment Agency's Flood Maps for Planning. Flood risk to the Site from coastal / tidal, fluvial, sewer and drainage infrastructure, and artificial sources are assessed to be Negligible to Low. Flood risk to the Site from groundwater sources is considered to be Medium.	***N/A***

Drainage	
As per WSP FRA: Inspection of the Thames Water Asset Plans (**Appendix C-4**), obtained in November 2019, indicates a Thames Water surface water sewer present in the southwestern corner of the Site. This sewer appears to collect highway drainage, as well as existing site drainage, and outfall into the Grand Union Canal. The existing site is believed to drain via a private network into the existing onsite Thames Water surface water sewer at manhole 6902 which is located in the southeast corner of the Site, before discharging to Grand Union Canal. Surface water run-off from the proposed development will be restricted to a greenfield runoff rate of 2 l/s/ha. The total discharge rate from both proposed units is 12.5 l/s. The nearest foul sewer is located approximately 400m to the west of the Site along Horton Road, and flows away from the Site. At the time of writing, records of existing private drainage on the Site were not made	***To connect into the foul system with a new connection, you need to apply for a Section 106 with Thames Water (guide attached):*** ***https://www.thameswater.co.uk/media-library/home/help/home-improvements/how-to-connect-to-a-sewer/apply-to-connect-to-a-public-sewer.pdf*** ***To obtain a trade effluent consent (to discharge water from excavations or site runoff etc) you can apply via Permit enquiries should be directed to Thames Water's Risk Management Team by telephoning 020 3577 9483 or by emailing trade.effluent@thameswater.co.uk . Application forms should be completed***

available, but it is assumed that private drainage is present, to serve the existing office development. The nearest connection for foul drainage is identified as a Thames Water manhole reference no. 1305 situated 400m to the west of the site. Peak foul flows from the proposed development will not exceed 3.7 l/s.	***on line via www.thameswater.co.uk. Please refer to the Wholesale; Business customers; Groundwater discharges section.***

Statutory Nuisance: Dust, Noise and Vibration

The current standards are stage IV for construction machinery operating in the Central Activities Zone and Opportunity Areas (including Canary Wharf) and stage IIIB in the rest of London. Stages IIIB and IV have not been defined for machines with constant speed engines, such as generators. This means that these machines will need to meet stage V. Stage IV has also not been directly defined for variable speed engines smaller than 56 kW. In most cases these engines will need to meet stage V if they are in the Central Activities Zone and Opportunity Areas (OAs). **Development zones map** All machinery in the Central Activities Zone and Opportunity Areas, including Canary Wharf, (shown in orange) should meet at least stage IV. You can find more detail about London's Opportunity Areas on our Opportunity Areas webpage. All machinery on sites in the rest of London (shown in blue) should meet at least stage IIIB. When you are registering a new site, you will be able to drop a pin on the site location to identify which zone your site is in.  Site will need to register their site and maintain a list of all on-site NRMM. The Local Authority will check if a site is registered and that all NRMM is listed to ensure compliance. Contractors, sub-contractors and plant hire business' will need to ensure that their equipment is compliant and make sure they provide the information needed to the site manager for the register. https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/nrmm	***Register for NRMM and log machinery on site*** ***Nuisance management plans and monitoring recommended. It is recommended that STROMA be consulted to determine monitoring regime and methods*** ***If chosen not to use a consultant, it is suggested that a noise and dust (PM10 and PM2.5 and directional if possible) monitors be place on the northern and Southern boundaries of site. It is also suggested that a vibration monitor be placed at the canal.***

See NRMM Practical Guide V.4
https://www.london.gov.uk/sites/default/files/nrmm_practical_guide_v4_sept20.pdf

As per Aecom Air Quality Report:

Sensitive Receptors:

There are a number of receptors that are sensitive to dust in the immediate vicinity of the Site or alongside routes which may be used by construction-related traffic. These include the existing residential areas to the west and south of the Proposed Development and a nursery school on Iron Bridge Road North. The majority of residential receptors are located on Horton Road, Stockley Road and roads branching from these two main routes.

The guidance from the Mayor of London (Ref 17) and the IAQM (Ref 25) provide criteria for determining the sensitivity of the area to dust soiling effects and the sensitivity of people to experiencing adverse health effects as a result of exposure to PM_{10}. In terms of sensitivity of the receptors referred to above, the residential properties located in close proximity to the Proposed Development are considered to be highly sensitive to both dust soiling impacts and human health effects. All other potential receptors (commercial and offices) in the study area are considered to have a medium level of sensitivity.

The identification of potential ecologically sensitive receptors has been undertaken in line with current guidance (Ref 17). There are no ecological receptors within 50 m of the Site boundary or within 50 m of a road used by construction vehicles on the public highway or up to 500 m from the Site entrance. Therefore, the risk of dust impacts at designated ecological receptor sites is not considered further in this assessment.

Table 13. Predicted Results for 2022 Future Baseline Scenario

Receptor ID	Annual Mean NO_2 Concentration ($\mu g/m^3$)	Annual Mean PM_{10} Concentration ($\mu g/m^3$)	Annual Mean $PM_{2.5}$ Concentration ($\mu g/m^3$)	No. of Days of Exceedance of PM_{10} 24-Hour Mean (50 $\mu g/m^3$) per Annum
Air Quality Objective	40.0	40.0	25.0	35
R1	23.3	15.9	10.9	0
R2	23.9	16.1	11.0	0
R3	37.4	19.8	13.5	3
R5	25.7	16.2	11.1	0
R6	25.0	16.0	10.9	0

As per AECOM Noise & Vibration Assessment:

For residential receptors, the LOAEL has been defined as 65 dB $L_{Aeq,T}$ during the daytime. The SOAEL threshold has been defined as 75 dB $L_{Aeq,T}$ during the daytime.

Table 3. Short Term Noise Monitoring Results (ST1)

Date of measurement	Time	Duration (T)	Ambient noise level $L_{Aeq,1h}$ (dB)	Maximum L_{AFmax} (dB)	Background $L_{A90,1h}$ (dB)
Wednesday 08/04/2020	13:00	60 minutes	55	74	41

Table 4. Long Term Noise Monitoring Results (LT1)

Date of measurement	Daytime (0700-2300)		Night-time (2300-0700)		
	Ambient noise level $L_{Aeq,16h}$ (dB)	Background $L_{A90,1h}$ (dB)	Ambient noise level $L_{Aeq,8h}$ (dB)	Background $L_{A90,1h}$ (dB)	Maximum L_{AFmax} (dB)
Wednesday 08/04/2020	53	39	51	38	74
Thursday 09/04/2020	54	40	48	36	72
Friday 10/04/2020	51	39	48	36	77
Saturday 11//04/2020	51	38	46	37	71
Sunday 12/04/2020	51	37	48	37	66
Monday 13/04/2020	51	37	48	33	77
Tuesday 14/04/2020	55	41			
Mean	52	38	48	36	73

The area surrounding the site consists of a range of large office buildings ranging from two to three storeys, set within extensive landscaping and car parking to the east of Stockley Road. Between the Grand Union Canal and the mainline railway, south of the site, is a belt of industrial units ranging from small to larger warehouses. These industrial units are set amongst extensive industrial yards including both car parking and goods storage. Large scale industrial units continue south along the line of Stockley Road, leading onto Prologis Park, Heathrow, which comprises large modern office buildings. Immediately west of Stockley Road is the Heathpark Golf Course and two hotel developments, adjacent to which are suburban residential streets in West Drayton.

To the south of the site and south of the railway line, there is an area of semi-detached and terraced properties, and south of the railway line is the former RAF Station site, now comprising residential dwellings in West Drayton Garden Village.

To the west of the site there is a mix of industrial and commercial premises including Phase 1 and Phase 2 of Prologis Park West London, bounded by residential. To the north the area can be characterised as mature landscaping, including a golf course and recreational open space.

•adjacent residential properties to the south which could be sensitive to noise generating activities from the proposed use and from visual appearance;

Section 61 notice required?	***N***
Requires checking?	***Y***

Additional Comments / Photographs


B11


B9
B9

Are any of the following environmental regulatory commitments required?

	Regulatory Requirement	Yes	No	Details / Comments	Responsible
Archaeology & Heritage	Written Scheme of Investigation (archaeological works)		x		
	Listed Building Consent		x		
	Planning in place (if demolishing in Conservation Area)		x		
	Scheduled Monument Consent		x		
	S42 licence – if surveying a Scheduled Monument		x		
	Consent for Parks, Gardens, Battlefields		x		
	Protected Wreck site		x		
Ecology	Badgers		x		
	Birds		x	Bird Hazard Management Plan in Place.	
	Fish capture / relocation	x		Fish observed in pond in pre-construction phase	
	Great crested newts		x		
	Reptiles / amphibians		x		
	Protected Plants		x		
	INNS requiring removal / treatment		x	Pay attention to Cotoneaster to ensure it does not spread and/or is disposed of correctly	
	Tree Felling Licence (Forestry Commission)		x		
Contaminated Land	Remediation Strategy	x		As per Crossfields (Remediation Implementation plan) and WSP (Remediation Strategy)	
	Materials Management Plan (MMP) DoWCoP	x		Ivy House	
	Asbestos Management Plan	x		Recommended	

	Mobile Treatment Licence (MTL)		x	TBC	
	Mobile Plant Licence (for treatment of soils / contaminated materials)		x	TBC	

	Regulatory Requirement	Yes	No	Details / Comments	Responsible
Waste Management	Materials Management Plan (MMP) DoWCoP	x		Ivy House	
	Environmental Permit / CAR authorisation		x		
	Waste Exemption		x		
	Wales only – register as hazardous waste producer		x		
	Mobile plant permit & deployment notification – if crushing / screening	x		Collins to provide for crushing and screening	
Water	Environmental Permit *Discharging water (>3 months) or treatment required*	x		Likely to require permit	
	Environmental Permit *Working near or on water, diverting / impounding water on main river, headwall construction (main river)*		x	Canals and River Trust to be consulted	
	Abstraction Licence Taking >20m3 a day		x		
	Ordinary Watercourse Consent *Diverting / impounding water, headwall construction*		x		
	CAR Authorisation (Scotland only)		x		
	Herbicides Approval *If you plan to use herbicides to control weeds in water or on the banks next to a waterbody or watercourse*		x		

winvic

Contract Name:	GSK West London	**Contract Number:**	P21-051
Prepared By: Name	**B Anderson**	**Environmental Manager:**	**Amit Patel**
Prepared By: Position	**Environmental Advisor**	**Date Prepared / Reviewed:**	9/1/21

Activity			***Environmental Aspect***														
			NEIGHBOURS & NUISANCE					**DISCHARGES & EMISSIONS**				**LAND & RESOURCES**			**ECOLOGY**	**GENERAL**	
Ref	**DESCRIPTION**		Noise	Dust / Odour	Traffic	Visual Impact	Vibration / Light	Surface Water	Ground Water	Solid Waste(s)	Liquid Waste(s)	Cultural Heritage	Land Use Management	Materials, Energy & Water Conservation	Ecological & Biodiversity Management	Environmental Incident	Other
		Applicable?	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	Notes	
1	Abstraction of Water	N															
2	Boring / Tunnelling / Microtunneling	N															
3	Concrete Batching	N															
4	Concrete Pours & Washout	Y						Yes	Yes	Yes	Yes			Yes	Yes	Yes	
5	Crushing, Screening & Material Reuse	Y	Yes	Yes			Yes			Yes			Yes	Yes		Yes	
6	Demolition Works	Y	Yes	Yes		Yes	Yes			Yes	Yes		Yes	Yes		Yes	
7	Dewatering / Over pumping	Y						Yes	Yes	Yes	Yes			Yes	Yes	Yes	
8	Earthworks	Y	Yes	Yes			Yes	Yes		Yes	Yes		Yes	Yes		Yes	
9	Excavation	Y	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	
10	Internal Fit-out	N															
11	M&E Work	Y								Yes	Yes					Yes	
12	Office Set-Up, Operation & Maintenance	Y	Yes			Yes	Yes			Yes	Yes			Yes		Yes	
13	Piling	Y	Yes				Yes	Yes	Yes	Yes	Yes			Yes		Yes	
14	Procurement of Materials & Services	Y			Yes					Yes	Yes			Yes		Yes	
15	Road Sweeping	Y		Yes	Yes			Yes	Yes	Yes	Yes			Yes		Yes	
16	Roadworks	N															
17	Site / Vegetation Clearance	Y				Yes				Yes		Yes			Yes	Yes	
18	Site Drainage	Y						Yes	Yes	Yes	Yes				Yes	Yes	
19	Storage / Use of Hazardous Materials	Y						Yes	Yes	Yes	Yes			Yes	Yes	Yes	
20	Temporary Works	Y	Yes					Yes	Yes						Yes	Yes	
21	Transportation - materials / wastes	Y	Yes	Yes	Yes									Yes		Yes	
22	Use of Plant & Vehicles, including maintenance	Y	Yes	Yes			Yes									Yes	
23	Use of sub-Contractors	Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
24	Washdown Activities (Wheels, Jet wash etc)	Y						Yes	Yes	Yes	Yes			Yes		Yes	
25	Waste Management	Y		Yes		Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	
26	Working in or near Tidal Waters	N															
27	Working in, near or over Water	Y						Yes	Yes	Yes	Yes			Yes	Yes	Yes	
28	Working with Groundwater	Y						Yes	Yes	Yes	Yes			Yes		Yes	
29	*Other - Insert*	N															

21. Contractors Method Statements: (copies kept in subcontract files)

- Cabin Set up
- Temporary Fencing
- Demolition and Asbestos removal
- Bulk Earthworks
- Foundations
- Groundworks and drainage
- Brickwork, Blockwork and reconstituted stone
- Pre-cast stairs
- Block and Beam floors
- Timber roof trusses
- Roof tiling
- Single Ply roofing
- Lead Flashing
- UPVC Windows
- External timber doors
- Man safe System
- Scaffold
- Render
- Lift Installation
- Aluminium Entrance screen and Doors
- Roof lights
- Joinery and Ironmongery
- Decoration [Painting and wallpaper]
- Ceramic tiling
- Screeding
- Partitions, Plastering, Tape and Jointing
- Floor finishes [Carpets & Vinyl]
- MF Ceilings
- Kitchen installations
- Furniture, Fixtures and fittings
- Mechanical installations
- Electrical Installations
- Landscaping
- Fencing and gates
- External paving
- Sealants
- Builders clean
- Miscellaneous Metalwork

www.collinsdemolition.co.uk	**METHOD STATEMENT**	**FILE REFERENCE: CDL143.11MS REV 1** **Revision Date: 07.06.2022**
CONTRACT: GSK Buildings, UXBRIDGE		CLIENT: WINVIC

SITE ADDRESS	**ACTIVITY**	**OFFICE ADDRESS**
Iron Bridge Road North, Uxbridge UB11 1BT	**Removal of Retaining wall in proximity to a canal**	Whiteley Road, Ripley, Derbyshire DE5 3QL Tel: 01623 750002

DISTRIBUTION	NAME	COMPANY	DATE	ISSUED BY
OFFICE	Scott Craddock	Collins Demolition	07.06.2022	NW
SITE	Chris Lythgoe	Collins Demolition	07.06.2022	NW
CLIENT	Richard Reid	WINVIC	07.06.2022	MW

This document is to be read in conjunction with CDL143MS Demolition Plan

SCOPE OF WORKS

The works consist of the mechanical removal of a retaining wall and foundations along with the subsequent back filling of the excavation created. Small breakers will be used to stitch break the wall and foundations into sections. An excavator will be used to remove the sections mechanically to a stockpile minimising vibration from the works. The excavation formed will be backfilled following removal do prevent disturbance to the land.

Debris and dust will be controlled throughout the operation using netting and water suppression. dust suppression using water will be for short periods only avoiding a build up of dusty/silty water on the ground. All ground water will be removed by tankers daily to avoid ponding. Works will cease on windy days to avoid airborne particles leving site. Winvic will provide an acustic fence to suppress the noise for canal users.

All refuelling operations will be undertaken in line with CDL143.7MS Refueling

Key Management & Contact Information

Scott Craddock, Managing Director, **07546121142** **Dave Murphy,** Operations Manager, **07591385449** **Chris Lythgoe,** Site Supervisor: **07803 411313**	**Amanda Kay,** Group HSEQ Manager: **07712 524461** **Andrew Lea,** Area HSEQ Manager: **07763 569446**

Public Interface

All works are to be performed along and within the site boundary fencing. There is only possible interface with the public at the site entrance.

The Principal Contractor are to provide suitable signage, warning the general public of heavy vehicle movements.

Plant & Equipment (All plant inspection records will be available from Collins's site supervisor)

Excavator	Hydraulic Breaker	Digging Bucket	Dust Suppresion Unit	Fencing Spanner
				

HOLD POINT: The Method Statement and Risk Assessment provided reflect the works and methods to be used on site and cover the hazards associated with these works.

Name:
Signature
Date:

Revision history

Rev No.	Author	Reviewed by	Approved by	Date approved	Reason
Initial Draft	HSEQ Tech				Initial Draft

Previous revision	Author	Reviewed by	Approved by	Date approved	Reason

APPENDIX 1 – HEALTH AND SAFETY

HEALTH AND SAFETY PRECAUTIONS

Risk Assessment General

- DEMOLITION OF RETAINING WALL (ATTACHED)

COSHH

- Natural Aggregates (COSHH 001)
- Brick and Block (COSHH 003)
- Portland Cement (COSHH 004)
- Crushed Concrete (COSHH 005)
- Asphalt (COSHH 007)
- EP2 Grease(s) (COSHH 021)
- AdBlue (COSHH 022)
- Hydraulic Oil Volvo (COSHH 038)
- Part synthetic engine oil (COSHH 039

APPENDIX 2 – METHODOLOGY

Sequence of Tasks

Before any works commence, the following points must be fulfilled;

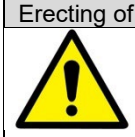
- All Collins employees are to receive a site induction by the Principal Contractor.
- All Collins employees must understand the contents of this Method Statement and associated Risk Assessments with a signed briefing register to confirm this.
- All Collins employees must provide a current CPCS/CSCS card for photocopying.
- Principle Contractor must provide a 'Permit to Work' detailing any services traversing the site. It is Principal Contractor. responsibility to investigate and protect all services within the site.

Installation of Heras Style Fencing

PPE

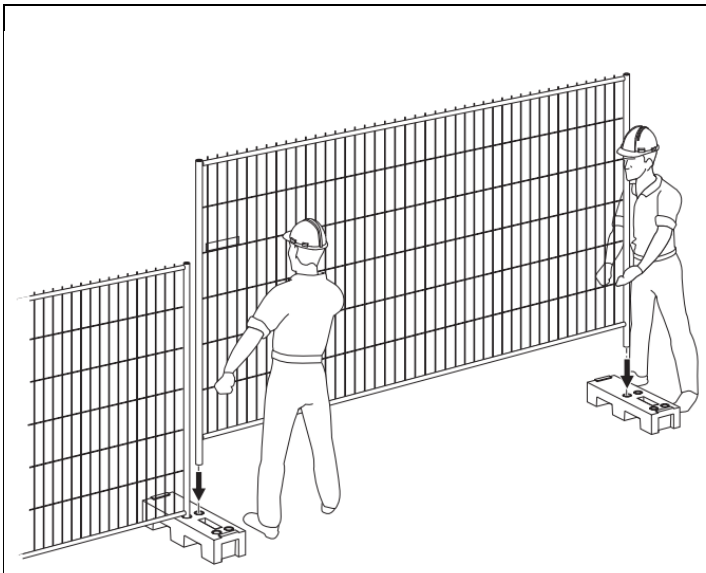
Hard Hat (EN397)	Hi-Vis Vest (EN471)	Safety Boots (BS EN 345 - 1)	Gloves (BS EN 388)	Safety Glasses (EN 166)	Ear Protection (EN 352-1)	Face Mask	Overalls	Seat Belts	Harness
									
✓	✓	✓	✓	✓	✗	✗	✗	✓	✗

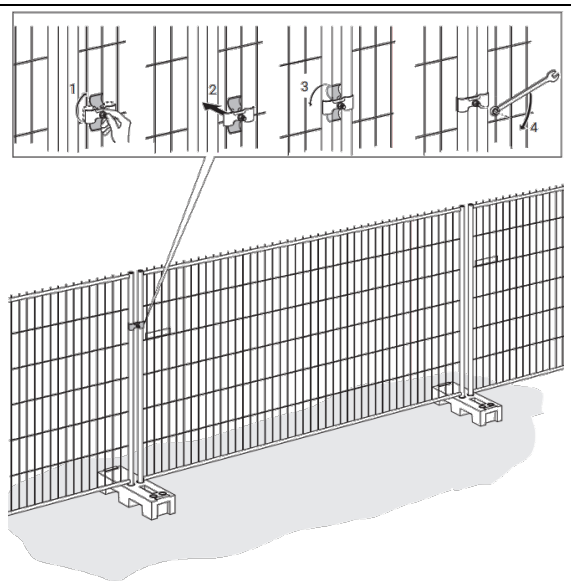
Erecting of 'HERAS' Style Fencing



HOLD POINT: Fencing is to be erected in line with the manufacturers design and guidance

1. The fencing blocks and panels will be delivered to site by the hire company and unloaded in the designated area within the site compound.
2. The fencing blocks (feet) will be manually lifted in to position by a labourer.
3. Once the feet have been positioned in the approximate position each fence panel will be moved into position by two staff members lifting one panel at a time together.
4. The fence panels will then be secured to each other with two fencing clips.
5. The Fencing is to be regularly inspected by the site's temporary works supervisor and a record kept of this on the "Temporary works inspection sheet for heras style fencing" located within the Collins Demolition Site File.





Derbis Netting

1. Operatives will unroll derbis netting to the required length for the fencing it is to cover. The operatives will cut the material at this length.
2. Operatives will lift sections of the netting up agaisnt the fence a use zip ties to fasten it in place.
3. This will be continued along the area designated to have debris netting until complete.

Disassembly of 'HERAS' Style Fencing

1. The disassembly of the 'HERAS' style fencing will be done in the reverse manner of the erection.
2. Operatives will begin by undoing the fencing clips attaching the panels. These are to be collected in a bucket or bag to ensure that they're all kept together and preventing loose clips becoming a trip hazard.
3. Following the removal of the clips two operatives will begin to lift the panels out of the fencing blocks. With an operative of each end of the panel they will lift and transport the panel to the designated storage location of site.

Dust Suppression

PPE

Hard Hat (EN397)	Hi-Vis Vest (EN471)	Safety Boots (BS EN 345 - 1)	Gloves (BS EN 388)	Safety Glasses (EN 166)	Ear Protection (EN 352-1)	Face Mask	Overalls	Seat Belts	Harness
✓	✓	✓	✓	✓	✓	✗	✗	✓	✗

HOLD POINT: Adequate dust suppression is to be in place prior to any works commencing that are likely to lead to high levels of dust emissions.

Pre-Damping

1. Before the process of demolition begins the area set to be demolished will be wet using a form of water suppressant equipment / plant.
2. This will help prevent any dust from being emit by contact with the structure.
3. Though pre-damping is effective it does not completely eliminate dust emissions so is to be used in conjunction with other dust suppression techniques.

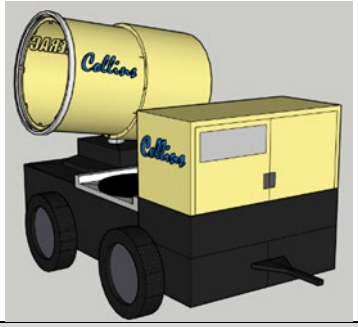
Sympathetic Demolition

1. The process of 'knocking down' the structure can be an effective way to reduce dust emissions.
2. By using precision attachments for the D-Rig you can 'carefully' take the structure apart section by section.

3. Using this technique over 'flattening' the structure will massively reduce the emissions from the process.

Water Cannon / Atomiser / Jet Wash Bowser

1. Implementing a Water based powered suppression unit can further reduce the dust emissions but is also very effective alone.
2. Aiming a powered water suppressing machine at the demolition works can help trap the dust from escaping into and out of site.
3. If done in combination with the previous 2 techniques it can be extremely effective and reduce the sites dust emissions massively.
4. This method requires a suitable method to refill water bowsers.
5. Under no circumstance should water be fired from a powered water suppressant unit at anyone.



Wind & Weather Monitoring

1. The site manager can help reduce the dust emissions by monitoring the wind and weather conditions for the site. The weather conditions are to be logged in the Site Dairy.
2. By doing this the site manager can make decisions on what techniques will be used and the positioning of the machinery.
3. On dry days the site manager will know that more water suppression will be required.
4. On windy days the site manager can position the water suppression units in locations to prevent the dust emissions spreading into and out of site.
5. The Weather conditions will be monitored daily and the site manager will inform the site staff and visitors how the weather conditions may affect the work or techniques used.

Banksman Guiding Site Plant / Machinery

PPE

Hard Hat (EN397)	Hi-Vis Vest (EN471)	Safety Boots (BS EN 345 - 1)	Gloves (BS EN 388)	Safety Glasses (EN 166)	Ear Protection (EN 352-1)	Face Mask	Overalls	Seat Belts	Harness
✓	✓	✓	✓	✓	✗	✗	✗	✗	✗

Preparation

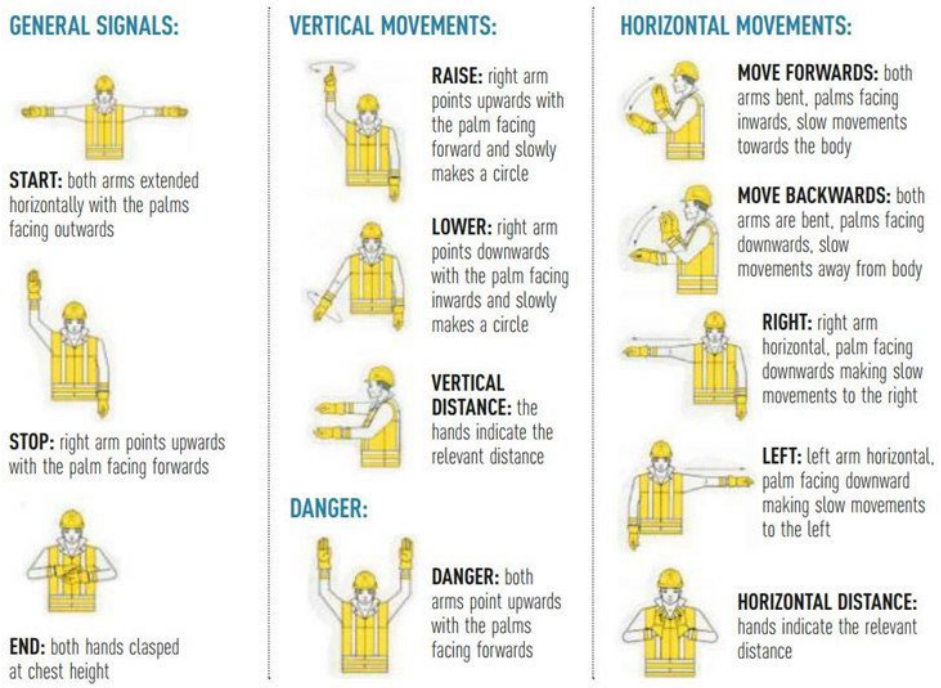
1. The Site Manager is to ensure that all operatives working as banksmen are competent and have the correct training.
2. The Banksmen are to be briefed by the site supervisor every day to ensure they're aware of the site activities they will be involved in and the hazards around them.
3. 2-Way radios will be used as a line of communication between Operators – Banksman – Supervisors.
4. All staff using them will be shown how to by a supervisor and where to get and charge them on site.

HOLD POINT: All operatives involved are to be competent and are to be regularly briefed about site activities and hazards.

Process

1. At the start of each working day the banksmen will meet with the supervisor who will explain to each of them individually what their task is.
2. They will then all retrieve a 2-way radio from the charging station.
3. Once wearing the correct P.P.E for their task they will enter site and begin their work.
4. If the Banksman see any faults with the machine, they are to contact the operator immediately.
5. The banksman may have to use hand signals to assist in the process. They will be aware of these from their training but can be shown them by a supervisor (using images as aids) if required as a refresher.
6. When walking in close proximity to any vehicle they must receive a visual signal from the operator to proceed.
7. Vehicles may have to be stopped to allow pedestrians or other vehicles to pass. No vehicle or pedestrian should pass close to a working machine without the banksman stopping the works.
8. In the case of a collision between plant, structures, vehicles or pedestrians the banksman must report this to the Site Supervisor Immediately.
9. At the end of each working day the 2-way radios are to be returned to the charging station and put-on charge ready for the next day. Employees will be held responsible for any damage caused to the radios due to lack of care.

Hand Signals



Mechanical Demolition of Retaining Wall

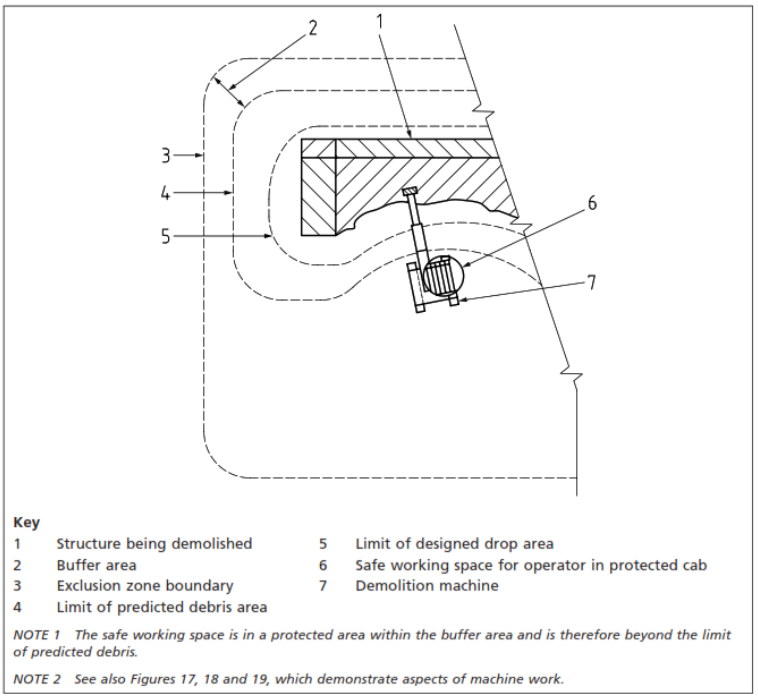
PPE

Hard Hat (EN397)	Hi-Vis Vest (EN471)	Safety Boots (BS EN 345 - 1)	Gloves (BS EN 388)	Safety Glasses (EN 166)	Ear Protection (EN 352-1)	Face Mask	Overalls	Seat Belts	Harness
✓	✓	✓	✓	✓	✓	✗	✗	✓	✗

HOLD POINT: Operators are to complete a Pre-Work Check Sheet on plant prior to works commencing

1. A Demolition exclusion zone is to be formed around the structure in accordance with BS6187 taking into account the predicted debris area. This will be dome using HERAS style fencing (see erection of fencing methodology). Example of a demolition exclusion zone for mechanical reduction of a structure shown below in Figure 16 from BS6187.

Figure 16 **Example of safe working space within an exclusion zone (typical for mechanical reduction or top-down demolition employing mechanical plant, etc.)**



Key

1	Structure being demolished	5	Limit of designed drop area
2	Buffer area	6	Safe working space for operator in protected cab
3	Exclusion zone boundary	7	Demolition machine
4	Limit of predicted debris area		

NOTE 1 The safe working space is in a protected area within the buffer area and is therefore beyond the limit of predicted debris.

NOTE 2 See also Figures 17, 18 and 19, which demonstrate aspects of machine work.

2. Once the exclusion zone has been formed and adequate signage is affixed the Demolition Specification Volvo 360-excavator operator will go to the plant attachment changing area and equip a hydraulic breaker. All hydraulic pipes will be attached to the Excavator in accordance with the manufacture's specification and check for any leaks or damage prior to works beginning. The breaker will also be greased, manually or via auto greaser, to the manufacturer's specification before activation.

3. The Excavator will then enter the exclusion zone to begin the demolition works. It will be positioned facing the structure with the tracks in line to allow for the excavator to track back quickly where required. The drive sprockets are to be kept to the rear to all for maximum stability whilst operating.

4. The operator will use the breaker attachment to stich break the wall, peppering holes overlapping each other until a section of wall is freed for removal.

HOLD POINT: If the structure becomes unstable during the process of demolition works are to stop and the demolition method reassessed.

5. The operator will return to the plant attachment changing area and exchange the hydraulic breaker for the digging bucket. The bucket will be used to 'scoop' the concrete up. The arisings will be placed in a stockpile where it will await processing.

HOLD POINT: Where the bucket is being used to lift large sections the excavator at its working limit is not to be exceeded.

6. This process will be repeated until all above ground sections of the structure has been removed. Following that the removal of the foundations will begin.

HOLD POINT: A permit to break ground must be obtained and a CAT scan of area prior to works commencing by Principal Contractor. A walk around of the area should be carried out and this information briefed to all staff. Any operators working in this area must have a copy of the permit in their cab.

7. The excavator is to remove the bucket attachment in the attachment changing area and exchange it for a hydraulic breaker. All hydraulic pipes will be attached to the Excavator in accordance with the manufacture's specification and check for any

leaks or damage prior to works beginning. The breaker will also be greased, manually or via auto greaser, to the manufacturer's specification before activation.

8. The operator will use the breaker to stitch break the concrete foundations, breaking holes overlapping in lines until the section becomes free.

9. The operator will return to the plant attachment changing area and exchange the hydraulic breaker for the digging bucket. The bucket will be used to 'scoop' the concrete up. The arisings will be placed in a stockpile where it will await processing.

HOLD POINT: Where the bucket is being used to lift large sections the excavator at its working limit is not to be exceeded.

10. Following the removal of the concrete foundations the operator will use the bucket to load the designated material into the excavation.

11. This will be done in layers and compacted by the excavator as they fill.

H&S Document Type	Method Statement, Risk & COSHH Assessments
Subject of Briefing	Processing and crushing
Document Reference Number	CDL143.11MS REV 1
Person(s) Conducting Briefing	

Name	Date	Appendices	Signature to confirm that I have read or had communicated to me and that I understand the requirements of the paperwork relating to the works.

Collins	RISK ASSESSMENT	FILE REFERENCE: CDL143.11MS
	DEMOLITION OF RETAINING WALL	
ASSESSORS: HSEQ Department	ASSESSMENT DATE: JUNE 2022	

HAZARDS	PERSONS AFFECTED & LIKELY HARM	RISK			ADDITIONAL CONTROL MEASURES	RESIDUAL RISK		
		L	S	R		L	S	R
Overturning of machine	Operator, other workers, sub-contractors, visitors, general public - minor scrapes to serious breaks, head injuries, crushing injuries possibly leading to death.	4	5	20 HIGH	• Only trained operatives are to operate machinery. • Collins representative will carry out daily inspections of the site reporting any defects to the relevant department to be rectified. Any defective plant is to be taken out of use until it has been signed off as repaired by an appropriately trained Collins service engineer. • Roll-over-protection-system (ROPS) and seat belts to be used. • All excavations are to have safe access and egress to them with a graded ramp in and out. • All shear edges are to have bunding or appropriate fencing around them to prevent plant and machinery from toppling in. • Any drop off point of excavations must have a bunding or stop blocks in place to prevent plant and machinery from reversing fully in to the excavation. • Ground is to be suitable for the plant operation, where required, boards are to be placed on the ground. • Plant and equipment to be parked on suitable flat ground, engine switched of and the parking brake on. • So far as is reasonably practicable, sharp bends, blind spots and steep gradients are to be eliminated. • When visibility is poor, a suitably trained Banksman is to be in place to aid in the reversing operation. • Any excavation over 2m in depth should have a suitable barrier consisting of guard rails. Toe boards should be provided around the surface of the works (Principal Contractor to supply fencing where needed). • Adequate additional lighting to be in place around any excavations (supplied by the Principal Contractor).	1	5	5 LOW
Collision with other plant, vehicles, persons on foot or fixed structures	Operator, other workers, sub-contractors, visitors, general public - minor injuries, scrapes, breaks possibly leading to death. Environmental impact	3	5	15 MED	• Roll-over-protection-system (ROPS) and seat belts to be used. • Sufficient distance between haul routes, other activities, walkways and structures. • Traffic routes, loading and storage areas need to be well designed with enforced speed limits, good visibility and the separation of vehicles and pedestrians where so far as is reasonably practicable. • Provision of a traffic management plan with passing arrangements in place. • Banksman to be utilised when operating near fixed structures, haul routes or walkways. • Audible warning is fixed and operational on all plant. • Restricted access to the demolition area. • All excavations are to have safe access and egress with a graded ramp in and out. • All shear edges are to have bunding or fencing around them to prevent plant and machinery from toppling in. • Any drop off point of excavations must have bunding or stop blocks in place to prevent plant and machinery from reversing fully in to the excavation. • Ground is to be suitable for the plant operating, where needed boards are to be placed on the ground. • Plant and equipment to be parked on suitable flat ground with the engine switched of and the parking brake on. • So far as is reasonably practicable, sharp bends, blind spots and steep gradients are to be eliminated. • When visibility is poor, a suitably trained Banksman is to be in place to aid in the reversing operation.	1	5	5 LOW

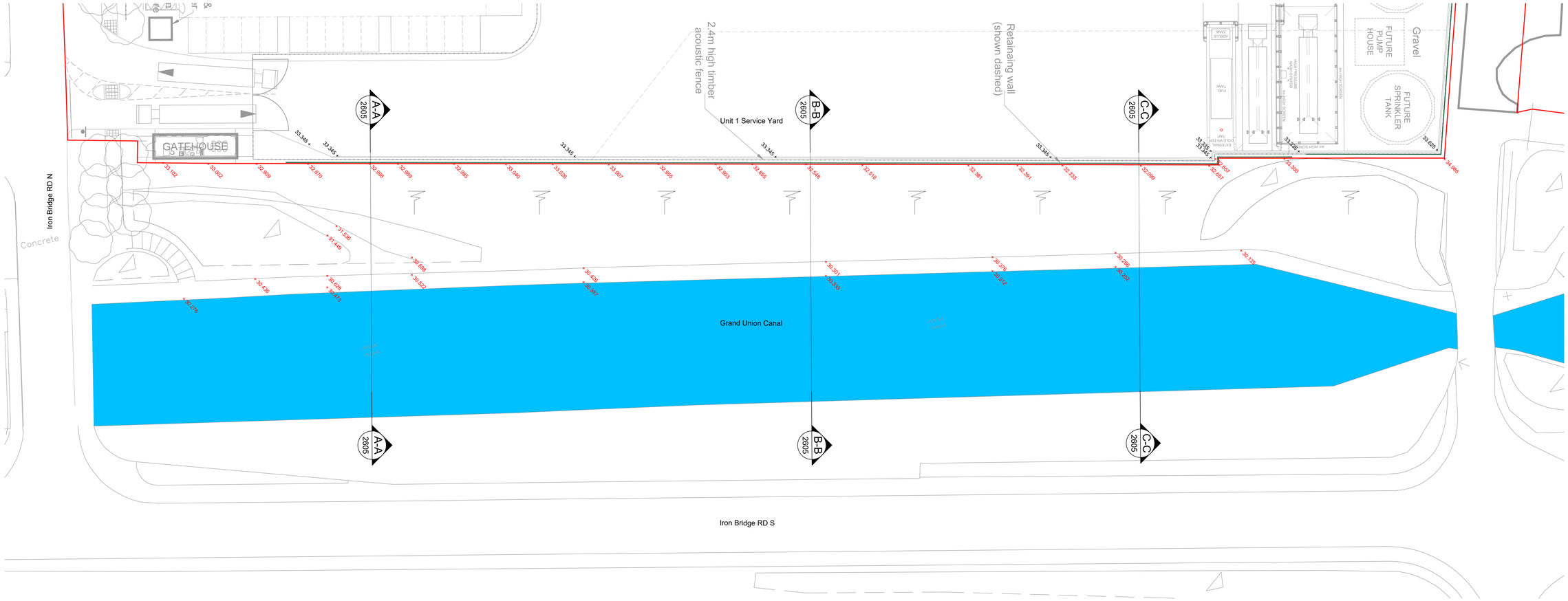
					• Area is to be set out for the Adblue, COSHH cube and diesel bowsers to be placed, where so far as is reasonably practicable this should be a fenced compound.			
Contact with underground services	Operator, other workers, sub-contractors - severe injuries from burns, respiratory injures, electric shock possibly leading to death	5	5	25 HIGH	• Principal Contractor is to supply a service drawing, CAT scan the area and mark out any services where Collins operations are going to take place. • Avoid the use a hand-held power tool or mechanical excavator within 0.5 m of a known cable or other utility. • Use a mechanical excavator or a power tool only to break the top surface of the footpath or carriageway. • Hand dig, using a round edged spade or shovel. A pick may be used with care to free large sections of stone. A fork or other pointed instrument shall never be used.	1	5	5 LOW
Falling debris	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	4	4	16 HIGH	• Operatives are responsible for making sure their load is stable before commencing a manoeuvre. • Pre-operational checks are completed on all plant and equipment and any damage or faults reported. • Ensure that the machine is large enough to carry out the work at arm's length, or that the machine is able to reach the structure safely. • EXCLUSION/DROP ZONE: Erect physical barriers and warning signs around / below area of works. • Banksmen will use two-way radios to keep in constant communication with the plant operator during the demolition phase. • Machines have highly reinforced cabs. • Foot traffic is to be kept to a minimum on site with pedestrians keeping adequate distance away from operating plant, all Collins staff are trained to get acknowledgement from the operator before approaching. • Any building in risk of collapse prior or during demolition will be treated as high priority and demolished. • Warning signage to be located on plant stating the dangers and for acknowledgement to be obtained before approaching. • Travel and operations on gradients must be controlled to ensure machine stability.	1	4	4 LOW
Premature collapse of part or all of structure	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	5	5	25 HIGH	• Site supervisor and machine operator to carry out walk around survey of the structure to assess the stability. • Advice will be obtained from a competent person if the site operatives are not sure of building and or structures construction. • To minimise the risk of overloading, the floor materials will need to be cleared on a regular basis, works will be stopped and the materials cleared from the floor into safety exclusions zones below. • Ensure through good supervision that the work is being carried out according to the method statement. • All works are carried out in compliance with 'BS6187:2011 Code of Practice for Demolition' and industry best practice as details in NFDC (National Federation of Demolition Contractors) guidance notes. • Each structure is naturally divided into structural bays. These bays are determined by any load bearing element of the structure i.e. upright columns, structural walls/rooms etc.	1	5	5 LOW
Projectiles	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, eye damage, cuts possibly leading to death	4	4	16 HIGH	• EXCLUSION ZONE: Erect physical barriers and warning signs around / below area of works. The operative must ensure that the work area has adequate ventilation for the task at hand. • The appropriate eye protection will be worn for the task been carried out, operatives carrying out breaking work must wear high impacted graded eye protection in line with BS EN 166B. • Water suppression will be used on area being worked in the form of a dust boss.	1	4	4 LOW
Sharp objects when splitting site materials	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	4	4	16 HIGH	• Manual handling of material is to be kept to a minimum and carried mostly with machines where practical. • The appropriate gloves will be worn for the materials been handled. • Shorts are not permitted to be worn on site; appropriate clothing is to be worn. • Operatives are trained in good personal hygiene.	1	4	4 LOW
Vibration	Operator - Whole body vibration: **Nausea - Vomiting** - abdominal pain - symptom checker. Loss of appetite, diarrhoea, tiredness.	2	3	6 MED	• Equipment is well maintained to avoid excessive vibration. • Vibration damping seats come as standard on plant. • Operatives are training to see the symptoms of WBV (Whole Body Vibration).	1	3	3 LOW

	HAV hand arm vibration, numbness of the extremities, whitening of the fingers, loss of grip, pins and needles							
Unauthorised use of machinery	Operator, other workers, sub-contractors, visitors, general public - minor injuries, knocks bangs, scrapes possibly leading to death	3	5	15 HIGH	• Principal Contractor is responsible for site security, with a minimum of secure fencing to be in place. • All plant is to be kept locked and the keys are to be kept secure when plant is not in use. • No untrained operatives are to operate plant and equipment. • Spot checks to be carried out by the health and safety team on operator qualifications on site audits. Keys to be removed while machine is unattended. • Keys and dead-man to be removed at the end of each working shift and stored in an allocated area. • Machines to be parked overnight in sight of security. • In the absence of security personnel, cab guards to be used if supplied with machine. • Keys to be distributed to trained and competent personnel only.	1	5	5 LOW
Noise emission	Operator, other workers, sub-contractors, visitors, general public - minor to serious injuries, tinnitus, loss of hearing which could be temporary/permanent	2	3	6 MED	• Plant and equipment cabs designed to minimise the amount of noise exposure to the operator. • The Principal Contractor is responsible for identifying local noise-sensitive properties and supply them with advance warning including a contact number for registering complaints during works. • The Principal Contractor is responsible for assessment potential noise impacts and select noise control measures in accordance with British Standard BS5228 and the technical advice above. • All plant and equipment are maintained and serviced on a regular basis.	1	3	3 LOW
Spill of hazardous substances	Operator, other workers, sub-contractors, environment impact - minor burns, sickness, inhalation leading to respiratory problems and/or possible death.	4	2	8 MED	• Diesel bowsers have double bunded tanks. • Reporting procedure is in place for any faults with the equipment. • Spill kits are available with adequate materials for dealing with a spill and disposing of the COSHH waste correctly. • Fuelling and servicing operations to be carried out in specified areas away from watercourses. • COSHH cubes are used for storing chemicals on site, these are bunded to capture any spills. With a padlock to prevent unauthorised access. • Operatives are aware of the COSHH assessments and material data safety sheets (MSDS) and where to obtain them in the event of a spill. • Fenced off area is to be agreed with the Principal Contractor for the storage of the COSHH cube, Adblue and for the bowsers to be parked up at night. • Bowsers are to be kept in a safe place away from high vehicle activity to prevent collision. • Fuelling and servicing operations to be carried out in specified areas away from watercourses. • Principal Contractor is responsible for supplying a top water draining management plan and provide this with instruction to Collins personnel on the measures to be taken.	2	2	4 LOW
Dust / Fumes	Operator, other workers, sub-contractors - respiratory Illness / occupational disease possibly leading to death	4	2	8 MED	• Water suppression will be used on area been worked in the form of a dust boss. • Water suppression used when required in the form of a tractor and bowser, spreading water over the area. • In dry periods, operatives are encouraged to keep all windows closed when operating plant. • Dust masks and respirators are available and Collins operatives face fit tested as required. • Operatives working near the lime/cement tankers are to wear overalls. • No chemicals are to be used in a confined space; most operations are carried out in a well-ventilated area. • Any operatives with concerns can report these to their supervisor/manager.	2	2	4 LOW
Falling from height	Operatives - serious injuries, breaks, fractures, head injuries possibly leading to death	4	5	20 HIGH	• 3 points of contact on machine at all times when entering and examining. • Plant and equipment are to be cleaned at the start or end of each shift making sure access steps are free from debris. • Though examination of harness and lanyards will be carried out by a competent 3rd party every 6 months • Immobilise machine before undertaking works on top of machine. • Use other aids where practicably possible to complete lengthy operations.	1	5	5 LOW

					• Refrain from this work in inclement weather. • Any leading edges/staircases/openings are to be secured and signs erected to prevent unauthorised access. • All excavations are to have safe access and egress to them with a graded ramp in and out. • All shear edges are to have bunding and or fencing around them to prevent plant and machinery from toppling in. • Principal Contractor is to supply adequate lighting in key areas of the site. • Where working at height cannot be eliminated, tethering and or mitigation is to be implemented.			
Fragile structures	Operatives - serious injuries, breaks, fractures, head injuries possibly leading to death	4	5	25 HIGH	• Access is to be limited and secured. • Inspection: If remote inspection is not possible then access to the roof must be planned and any risks must be assessed and appropriate action taken to reduce the dangers. • If a fall protection system is already installed, ensure that the system has been maintained and inspected properly and that only trained and competent people use the system. • Where there are any fragile areas these need to be marked and secured to prevent entry.	1	5	5 LOW
Heavy items poor manual handling	Collins operatives - pulls, strains, torn ligaments break injuries to upper and lower back, slipped disc and hernias	3	4	12 MED	• Manual handling operations are to be avoided so far as is reasonably practicable, this can be done by using lifting aids. • All operatives are to assess the load before moving it - TILE (Task, Individual, Load, Environment). • No operative is to lift above their individual capability. • Where lifting aids cannot be used and it is possible to break the load down this is to be done. • Where a load cannot be split down operatives are to conduct a team lift with another individual, when lift is not in their individual capability. • Manual lifting of large items where so far as is reasonably practicable in adverse weather conditions.	1	4	4 LOW
Fire / explosion	Collins operatives, other workers, sub-contractors, visitors, general public - serious impact injuries, burns possibly leading to death	4	4	16 HIGH	• No smoking in any Collins plant, equipment or vehicles. • Principal Contractor is responsible for site security, with a minimum of secure fencing to be in place. • Waste is to be kept in separate locked receptacles. • Spread sand to area below cutting area if permissible. • EXCLUSION ZONE: Erect physical barriers and warning signs around / below area of works. The operative must ensure that the work area has adequate ventilation for the task at hand. • To reduce the risk of an uncontrolled fire no hot works must be undertaken within one hour of lunch or of the shift ending. Ensure permit is signed off. • Good level of housekeeping in and around site, all COSHH waste is to be disposed of correctly. • All cutting equipment i.e. guns, bottles to be fitted with correct safety valves and flash back arrestors. • All full and empty gas bottles to be stored in a safe area, preferably within a secure compound. Propane to be separated from oxygen by a minimum of 3 metres. No storage of bottles within the immediate boundary of any site. • Flammable liquids are kept locked in a COSHH cube on site. • Ensure that fire extinguishers are provided are close to hand at the works area. • Combustible materials kept away from the refuelling station. • Equipment to be shut down / isolated prior to starting refuelling operation. • Switch off the engine and apply the parking brake before leaving the vehicle cab. • Alert the site manager immediately in the event of a large spillage. • Operation of mobile phones is not allowed when refuelling.	1	4	4 LOW
Slips trips and falls	Operator, other workers, sub-contractors, visitors, general Public - minor injuries, scrapes, knocks, broken bones and cuts	4	4	16 HIGH	• The Principal Contractor is responsible for supplying and maintaining safe access and egress to site and around site. • 3 points of contact on machine at all times when entering and examining. • Plant and equipment are to be cleaned at the start or end of each shift making sure access steps are free from debris. • Immobilise machine before undertaking works on top of machine.	1	4	4 LOW

					• All excavations are to have safe access and egress to them with a graded ramp in and out. • All shear edges are to have bunding and or fencing around them to prevent plant and machinery from toppling in. • Principal Contractor is to supply adequate lighting in key areas of the site. • Good standard of housekeeping is to be maintained on site. Any issues reported to the Principal Contractor. • Individuals are responsible for maintaining their Personal Protection Equipment (PPE) if they require new PPE, they must inform the Collins supervisor/site manager for replacements.			
Poor hygiene	Operator, other workers, sub-contractors, visitor's – sickness, skin conditions, disease (leptospirosis)	4	4	16 HIGH	• The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers, where the nature of work is particularly dirty or there is a need to decontaminate. Dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. • Supervisor/managers are to brief the operatives on keeping the facilities clean.	1	4	4 LOW
Excess water	Operator, other workers, sub-contractors, visitors, general public - could lead to spread of viruses/disease, drowning leading to death	4	5	20 HIGH	• Waterproof coats, leggings and wellingtons are to be made available to Collins operatives as required. • The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers where the nature of work is particularly dirty or there is a need to decontaminate. dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. • Excess water on site is to be managed with the use of bowsers and pumps to eliminate the water and dispose of in a pre-agreed location with the Principal Contractor.	1	5	5 LOW
Inclement Weather	Operator, other workers, sub-contractors, visitors, general public – symptoms of cold/flu, hypothermia, breaks	3	5	15 MED	• Winter Personal Protective Equipment supplied (thermal hat liners, coats, gloves) as required for Collins operatives. • The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers where the nature of work is particularly dirty or there is a need to decontaminate, dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. • If gritting is required around the Collins compound, Collins site supervisor is to liaise with the Principal Contractor to arrange this. • Water proof coats, leggings and wellingtons are to be made available to Collins operatives as required.	1	5	5 LOW
Fouling of the road surfaces	Operator, other workers, sub-contractors, visitors, general public – slipping, skidding of vehicles leading to serious injury	3	4	12 MED	• Principal Contractor is responsible for monitoring and managing the condition of the roads external to the site. • Collins supervisors/managers should arrange for wheel/track cleaning facilities where necessary. Any concerns or issues will be highlighted to the Principal Contractor.	1	4	4 LOW
Hazardous substances	Operator, other workers, sub-contractors - long term disease, Mesothelioma, lung cancer leading to possible death	4	5	20 HIGH	• Principal Contractor is responsible for arranging and managing site surveys and soil sampling before the site works starts. • Collins operatives are trained on UKATA asbestos awareness. • Refurbishment and demolition survey to be untaken prior to the works commencing, the survey will be relayed to all operatives on induction. • If unknown substances are found during demolition all work will stop and the Principal Contractor be made aware, works will commence once the integrity of the substance has been identified and the appropriate action taken. • All chemicals used are to have a COSHH assessment carried out and accompanied by a material safety data sheet (MSDS). Collins operatives will be made aware of these documents and control measures as well as where to find them if required.	1	5	5 LOW

Overhead services	Operator, other workers, sub-contractors - electric shock leading to respiratory problems, muscle convulsions, arrhythmia of the heart leading to possible death	4	5	20 HIGH	• The Principal Contractor is responsible for contacting the utility supplier for details of supply. • Lines to be made dead where practical. If not practical, the steps below are to be taken. • Marking out the GS6 area must be conducted by a competent person. This must consist of advance warning signs of voltage, high (height specified by the electrical company) from ground level of the cabs, crossing to be illuminated if working after dark. • All operatives are to be briefed on the details of the GS6 before working in the area. • Access routes are to be level, firm and well maintained to prevent tilting of plant once under the area. • If lighting is required it should be placed at ground level shining up to the cables. • Principal Contractor is responsible for maintaining the GS6 barriers, signs, ground conditions etc. • Access crossings are to be kept to a minimum. • If working under the GS6 plant being used to excavate should not be able to reach the overhead services.	2	5	10 MED
Live services	Operator, other workers, sub-contractors - electric shock leading to respiratory problems, muscle convulsions, arrhythmia of the heart leading to possible death	4	5	20 HIGH	• The Principal Contractor is responsible for contacting the utility supplier for details of supply. • Isolation of services is only to be undertaken by a trained and authorised person. • No works are to commence until a physical cut/break is observed and the appropriate certifications have been issued if conducting demolition work in the vicinity of any services. • Permit to work are to be obtained and followed before any works commence. • All live services are to be marked up and warning signs/demarcation in place, all operatives on site are to be made aware at the induction stage of the location of these.	1	5	5 LOW



Plan
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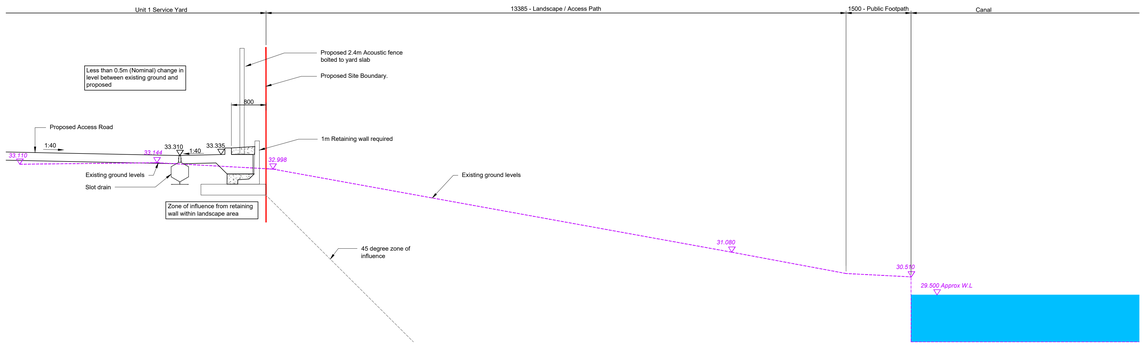
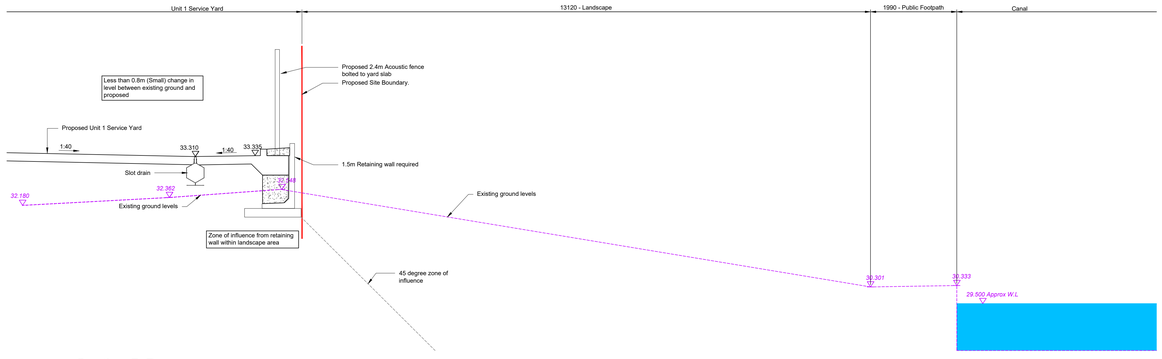


Section A-A
Scale (1:50)



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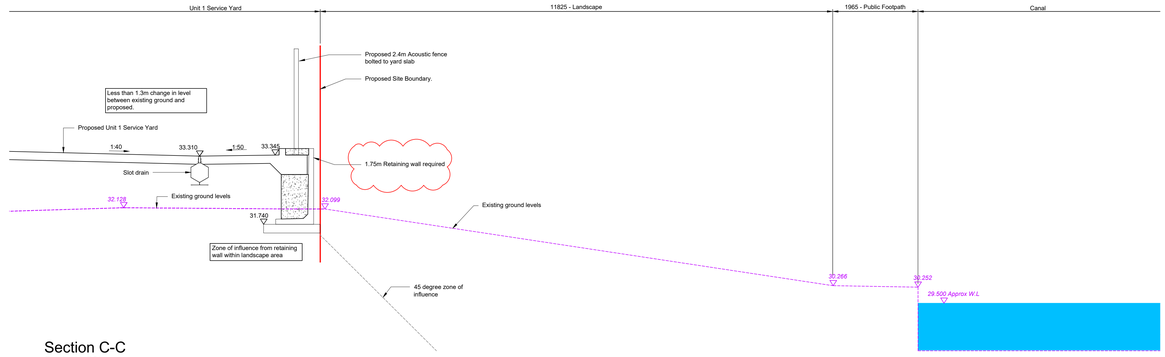
Scale (1:50)



Section C-C
Scale (1:50)

Note:
This drawing has been created in response to:
- **Planning Condition 16 of the granted planning application reference 39207/APP/2020/2188**
- **Section b) The impact on the structural integrity of waterway infrastructure letter from the Canal and River Trust dated 13 August 2020 (Your Ref CRTR-PLAN-2020-30345).**

The purpose of this drawing and information shown is to demonstrate that the proposed works do not materially alter the canal cutting.

The Retaining wall does not rely on the existing cutting for lateral resistance.

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.

Key :

- : Indicates Retaining Wall Extents
- : Site Boundary
- 34.530 + : Indicates Proposed Levels
- 34.530 + : Indicates Existing Levels from honbridgeRoad_survey_Rev1_Winvic

N

Key

- Area of works that have been revised
- Area of works currently in abeyance

1m SCALE 1:50

1m SCALE 1:200

Rev	Description	By	Ckd	Date
P02	Section C-C retaining wall size updated. Box note updated.	RB	MJR	01.6.22
P01	First Issue for review and comment.	RB	MJR	23.03.22

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Client: PROLOGIS®

Project: Prologis Park West London Expansion

Title: Site Sections Including Grand Union Canal

Status	Scale @ A0	Date Created
Preliminary	1:200	23.03.22
Task Team Manager	**Information Author**	**Task Information Manager**
MH	RB	MH

Document Number: GB000694-RPS-01-XX-DR-C-2605
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

RPS Project Number	Suitability	Revision
NK019749	S1	P02

rpsgroup.com

21. The Health & Safety File:

Health and Safety file to be completed in accordance with the Clients requirements.

Q44 O&M Manual Tracker to be used.

Temporary Surface Water Management Plan:
Pollution Control Measures

Former GSK Site Iron Bridge Rd Northwest London

P21-051

Revision Number:	Description of changes made:	Updated by:	Date of Update:
V1	New document	AP	30/3/22

Contents

1.0 SURFACE WATER DISCHARGE CONSENTS

Guidance provided in the Environment Agency regulatory position statement (RPS) for temporary dewatering from excavations to surface water states that only uncontaminated water consisting of clean and clear rainwater or infiltrated groundwater may be released from a site for up to three consecutive months under exemption.

https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits

To qualify for the exemption a series of conditions aimed to prevent pollution in the receiving water body must be met. Consequently, the discharge must not:

- result in muddy water
- contain any chemical agent such as a coagulant or flocculant
- contain any contaminant such as oil
- contain concrete wash water even if it has been treated
- contain site drainage from surfaces such as haul roads, storage areas
- spread invasive plants animals or diseases
- be within or close to a sensitive ecological site

Providing the site can meet with the requirements of the RPS, dewatering of open excavations will be undertaken in accordance with its requirements.

Sub-contractors RAMS (risk assessment & method statements) will document the appropriate control measures to minimise the risk of pollution including how to:

- minimise the level of contaminants being generated such as silt
- minimise water entering an excavation such as from rainfall or runoff
- prevent contaminated water moving to a river or stream
- dispose of water that enters the excavation including any silt control interventions
- maintain silt control interventions and monitor water quality leaving site

2.0 MONITORING OF DISCHARGE

Prior to the discharge of any water to site a visual inspection will be undertaken of standing water. If further testing is required water samples will be taken and turbidity assessed (NTU). Dependant on previous use for the site contamination may also be present; this could be in the form of hydrocarbons, metals etc.

An assessment will be undertaken of the ground investigation report to determine if the water meets the required EQS (Environmental Quality Standards) prior to discharge.

If it is determined that contamination is present, no water can be discharged directly to surface waters.

3.0 CONTAMINATION

In the event of water being unsuitable to discharge to surface waters there are two options:

- Discharge to foul (under trade effluent consent) authorised by sewerage undertaker
- Contain water and remove from site by a licenced waste carrier

4.0 BESPOKE PERMIT CONSIDERATIONS

In the event of dewatering activities exceeding a period of 3 months, or treatment being required (i.e., attenuation and settlement, flocculation to remove colloidal clays) a bespoke environmental permit will be required.

Permits can take several months to be determined, so early engagement with the local environment officer is advised.

5.0 ENVIRONMENTAL MANAGEMENT SYSTEM

Winvic will develop a full water management plan which forms part of the Winvic Environmental Management System (EMS), certified to ISO 14001:2015.

The plan will follow the impact and aspect register and is designed to identify environmental risk and outline the methods and philosophy behind avoiding and reducing pollution risk, as well as mitigating effect; collecting, treating, and discharging water from site in a suitable manner so as not to impact surface and ground waters during construction.

The surface water management plan is a live, dynamic document and will be a standing agenda item on the weekly site progress meeting.

6.0 COMMUNICATION

Environmental issues will be reviewed internally at weekly site progress meetings, in accordance with the Winvic ISO14001 EMS. The agenda will include:

- Identify change or variation in the working method and whether this alters the environmental risk profile

- Environmental incidents, complaints, and non-conformance; assignment of corrective actions and sign off on previous actions
- Provide specific instruction to subcontractors and site staff
- Environmental information will be delivered to contract personnel in the following way:
    - Including environmental issues as an agenda item on project progress meetings
    - Inductions, topic-specific training, toolbox talks
    - Posting information on notice boards
    - Parent company communications, such as cascade briefings, magazine, intranet. Additionally, within the contract, information will be communicated through:
    - Weekly SHEQ meetings
    - Supply chain meetings
    - Weekly Project review meeting
    - Other meetings e.g., design team meeting
- Keep copies of the consent or written agreement including any conditions on site and confirm those conditions have been transposed into the method of work.

7.0 TRAINING AND AWARENESS

All key persons must be identified alongside their role and responsibility and contract details. A nominated person shall have responsibilities that include but are not limited to:

- All project operatives and supervisory staff will receive a site-specific induction that covers environmental issues associated with their roles and responsibilities
- More detailed training, such as that required for pollution control measures and waste management plans, will be given to staff as required.
- Training on specific environmental topics will be given by suitably qualified personnel where required.
- Site supervisors, engineers or Environmental Advisor will give toolbox talks to operatives on key issues such as silt control, water pollution prevention, spill response, protected species, and waste management, drawing upon the full suite of Toolbox Talk's (TBT's) as relevant to the project. Keep a record of all operatives that undertake the induction and toolbox talks.
- Details of task specific Environmental Operational Controls including any permit conditions and detailed methodologies shall be included in RAMS
- Display posters such as silt control, spill response
- Ensure permits to pump are in place

8.0 POLLUTION CONTROL MEASURES

Winvic will consider pollution control measures throughout the planning and implementation of the GSK/Prologis project. actions will be drawn from pre-construction information and provide additional recommendations for pollution control measures, compiling the salient points in a single action table.

The surface water management for the temporary works will primarily use passive silt control options i.e., good working practices, drainage, and settlement. Only when this avenue has been exhausted will active controls such as the use of flocculants and, or coagulants be introduced as a water treatment recommendation. Any active measures implemented will be done so incrementally to ensure treatment using the least flocculant.

9.0 ON-SITE MONITORING REGIME

Should it be required there are procedures to follow. These procedures are in place for longer lasting projects unlike GSK/Prologis where the earthworks are planned for a brief 5-week period in summer however should it be required and In order to ensure that the mitigation and treatment process is working correctly, self-monitoring will be undertaken by trained site personnel on a daily basis for the first month then weekly thereafter or following a heavy rainfall event.

The monitoring should include as a minimum; turbidity (NTU). Any discharge consent will require total suspended solids (TSS) measured in mg/l. NTU may be used to provide a correlation to TSS, this offers a feel for the relationship in various environmental conditions rather than build an absolute correlation graph.

Should the monitoring regime show a rise in any of the parameters the test will be repeated. Should the test return the same elevated result, discharge from site will be ceased, site water tested, and the underlying cause investigated. If this test is within normal limits and proven not to be the source of the elevated results, then discharge will recommence. If the site water is found to be the source of the issue the discharge will cease until appropriate measures have been put in place to remove the source of pollution. Any anomalies or elevated results must be discussed with all concerned parties on site.

If a pollution event is deemed to have occurred, then the Regulator will be notified of the event, as required, and remediation measures undertaken.

Managing silt is an iterative process and any system will need to be checked regularly when it is first set up to ensure that it is operating at its optimum. Monitor the effectiveness of the

interventions on a weekly basis or immediately following a storm event and scale back or up as required. All silt control measures require regular review with the aim of safeguarding against pollution events as construction progresses

There will be a programme of audits as part of the project's Environmental Management System carried out by both independent parties and the internal environmental team. The audit will address all environmental measures including the pollution control measures (drainage management) to ensure their function and maintenance.

Whilst proactive silt management will be encouraged it is acknowledged that an element of reactive work will be necessary, making the plan dynamic. Change or variation in the working method and new site activities will be assessed for their potential to impact on the water environment as well as reviewing working documentation, the implementation of that documentation and an evaluation of the site condition. Should the audit raise any issues or non-conformance with the projects EMS or best practice they will be addressed immediately during the audit. Where this is not possible or a problem with documentation and/or the EMS is identified a corrective action will be raised to the project's Environmental Co-ordinator with a timeframe for completion.

10. ENVIRONMENTAL INCIDENT AND EMERGENCY PREPAREDNESS

Control measures to prevent and control environmental incidents and emergencies on sites are referenced in the register of environmental effects and detailed in site emergency plans.

Generally, pollution prevention will be achieved by adequate training, by the provision of containment measures such as plant nappies, absorbent mats or materials, drain covers for preventing impact on sewers or watercourses and by complying with safe working methods.

Adequate and appropriately placed spill kits will be provided for rapid incident response when and where prevention fails.

Regular drills (either practical or desktop) shall be conducted and recorded to maintain competency levels of site personnel and adequacy of response plans.

11. INCIDENTS AND EMERGENCY RESPONSE

Actions in response to environmental incidents and emergencies will be communicated at inductions and task briefings.

Site plans showing the locations of spill kits and waste facilities, in addition to the locations of health and safety facilities, will be available on-site office and welfare cabin notice boards.

Plans will include the names of personnel with specific environmental responsibilities, and actions to be taken. Cross reference will be made to contingency planning requirements.

Provision of spill kits and drainage protection (drain covers and absorbent pads) will be available on site to be used in the event of a fuel spill to protect sewer and surface water drains. Pollution Prevention and Control measures are detailed in full in the Winvic EMS.

12. INCIDENT REPORTING AND INVESTIGATION

Incidents are to be reported through the management hierarchy as soon as practically possible after they have been identified. Site management will assess the significance of the incident and determine the level of investigation.

Incidents and emergencies will be reported in accordance with Winvic site emergency requirements.

All incidents must be reported to the HSEQ Manager / Environmental Manager and entered onto the appropriate reporting system.

13. GSK / PROLOGIS SITE SPECIFIC ACTIONS

GSK has an existing stormwater pipe running between building 9 and 10. This pipe is 4 meters deep and carries the water from the ponds opposite site to the canal, this pipe will require diverting during the later ground working phase (RAMS will be provided nearer the time) however will remain sealed for the duration of the demolition and earthworks periods. Keeping the pipe sealed will eliminate any water entering the canal from site.

During the demolition phase the main problem is contaminated ground water. This will be encountered when removing underground tanks. This water will be contained in-situ and samples sent to the laboratory for identification, once the results are confirmed the water will be removed from site via licenced trade effluent tankers through Collins Earthworks.

During construction phase the main problem is rainwater during the earthworks period. GSK/Prologis earthworks only last for 5-weeks through July so we don’t anticipate heavy prolonged rain however there are procedures to follow should this happen, listed below.

These procedures are normally associated with long term earthworks but can be used on short term if required.

Create an attenuation holding pond

- Construct a temporary lined holding attenuation feature.
- Obtain trade effluent release licence (Affinity Water)
- Prevent uncontrolled release of water from the attenuation feature to surface water
- Create a silt settlement/water treatment pond.
- Install a method to enable the controlled release of water into the foul with licence.
- Ensure that the attenuation feature is sufficient to hold water in a storm event.
- Create attenuation feature early in the project to allow them to vegetate
- In construction use topsoil over clay, create slope roughness by tracking machines up/down the banks to trap the water on the slope reducing its erosive power and vegetate banks at the earliest opportunity.
- Form a stone bund around the outfall or pump head to prevent soft sediments from being drawn through.

Should the pond not be performing adequately:

- Improve the design of the attenuation pond to promote settlement. Introduce water into the settlement feature at the furthest point from the outfall or pump head.
- Ensure the discharge points into the attenuation pond are protected with stone or other material to prevent erosion of the banks.
- Consider introducing bunds within the attenuation pond to prevent shortcutting and to promote settlement
- The bunds may be constructed from clean aggregate or silt curtain
- Consider whether the pond needs to be resized or supplemented

Secondary Treatment

Work to maximise the impact of the pond in terms of silt settlement prior to release for secondary treatment.

- Where possible a gravity outfall will be used to release water from the pond into the foul.
- Otherwise use a floating pump head or create a stone bund around the pump to reduce the transfer of silt when pumping. Do not allow the pump head to settle on or draw silts from the bed.
- Provide silt capture channel / lamella tank for secondary treatment to remove colloidal clay if necessary

A hierarchical process of treatment will be followed. This is as follows:

1. Settlement within lagoon with filtration by vegetation in land drain

3. Use of flocculant blocks upstream of the Pond to provide pre-treatment (blocks to be deployed upstream of the pond within a lined inlet channel and / or blocks within a Pipe Reactor or similar)

2. Supplement with Flocculant Mats. Geotextile mats chemically treated with flocculant with some coagulant function - to be lain within the land drain, accompanied by Silt Mats if needed. This will provide supplementary filtration post settlement.

4. Use of a Pipe Reactor (or similar) or lamella tank and silt capture channel downstream of pond if necessary. This will polish water exiting the pond.

- Ensure that a minimum of 30 metres of lay-flat hose is used on the exit of the reactor, along with the use of clean stone at the exit of the lay-flat hosing to act as a diffuser / baffle to spread the water and reduce scour.
- Where possible water exiting the Pipe Reactor (or similar) hosing will be directed into the vegetated field drain.
- Should filtration not reach the desired water quality then the option exists to throttle back the discharge.
- Additionally, where added treatment is needed then flocculant mats, followed by silt mats will be laid within the field drain.

Monitoring

- Monitor the water quality being released from the pond – this will determine the need for interventions to be upscaled accordingly,
- Monitor the surface water being released from site at the point of discharge for turbidity (NTU), pH and visible oils.

E07
Construction Environmental Management Plan

Prologis GSK West London

P21-051

Revision Number:	Description of changes made:	Updated by:	Date of Update:
01	First Draft	B Anderson	05/01/2021
02	Updated	A.Patel	07/03/2022

Note: this plan is to be reviewed at least every three months

Contents

1.0 Environmental Planning & Procedures

This Construction Environmental Management Plan (CEMP) has been prepared in accordance with Winvic Environmental Management System (EMS). It identifies specific environmental issues associated with **Prologis GSK West London** and identifies specific procedures that will be used to manage them. Relevant environmental information will be communicated as required.

All amendments to this CEMP must be made by project management in consultation with the Environmental Manager or HSEQ Manager.

1.1 Emergency & Incident Preparedness

Emergency planning will be managed in accordance with the Emergency Plan procedure. The Emergency Plan will be displayed on the site noticeboard.

In order to minimise the risk of a pollution incident, subcontractors must ensure all operatives understand the environmental risks associated with their work activity and what control measures are in place to eliminate or reduce negative environmental impact. Furthermore, subcontractors must adhere to the **G100** Minimum Standards document.

Reporting and investigation of environmental incidents must be in accordance with Accident Investigation (**WP01).**

1.2. Environmental Policy

A copy of Winvic Construction Limited's ISO 14001 Certificate is provided in Appendix A of this report.

Winvic Construction Limited recognises the environmental impacts associated with this project and is committed to continually improving its environmental performance. The policy statement sets out the aims of the environmental plan for the construction of the proposed development with the various aims summarised below:

- To meet the requirements of all relevant environmental legislation, agreements, authorisations and commitments.
- To ensure that all environmental undertakings and obligations of Winvic Construction Limited are fulfilled.
- To adopt working practices that will achieve good environmental practice on site.
- To ensure that sub-contractors and suppliers are aware of the environmental constraints and opportunities of the site and follow any necessary procedures in order to ensure good environmental practice.
- To identify the responsibilities of staff and contractors in achieving good environmental practice on site.
- To mitigate the effects of the construction works on businesses, highway users and the general public.
- To assist in the development of the company environmental management system, not only for the requirements of this project but for future use.

All personnel are required to understand and implement the requirements of this Construction Environmental Management Plan.

1.3. Environmental records

Winvic will maintain records for all aspects of the work on Winvic's Intranet System (Union Square):

- Environmental permits
- Environmental risk register and management systems, including instructions for methods of work and any pollution control plans
- All operating procedures
- Staff competence and training records
- Routine monitoring results such as water quality
- Monitoring and compliance checks, findings of investigation and actions taken
- Environmental incidents, non-conformance and near miss reports, findings of investigation and actions taken
- Complaints made, findings of investigation and actions taken
- Audits of management systems
- Management reviews and changes made to the management system

2.0 Environmental Risk (Aspects & Impacts)

Environmental risk is assessed using the Environmental Site Visit Checklist **(E03)**. An Environmental Aspect and Impact Assessment **(E06)** for this project has been undertaken to identify activities which pose a risk to the environment, their significance, along with appropriate mitigating actions.

Specific activities which pose a risk to the environment will have actions detailed in RAMS to mitigate those risks.

The assessment looks at each site activity against the following environmental aspects:

- Emissions to air
- Emission to land
- Emissions to water
- Waste generation
- Nuisance and environmental health
- Ecology and Biodiversity
- Cultural heritage
- Use of raw materials
- Use of natural resources

Details of the control measures identified in the assessment will be communicated to relevant subcontractors. Subcontractors must manage all risks associated with their work activity / package in accordance with this document.

Where the subcontractor identifies additional environmental risk, it is the subcontractor's responsibility to inform the project team and request that the Environmental Aspect and Impact Assessment is reviewed and amended.

In the event subcontractors undertake works, details of the CEMP and Environmental Aspect and Impact Assessment will be shared with them and their RAMS reviewed to ensure compliance.

3.0 Project Specific Requirements Summary

The applicable environmental requirements to be delivered by the project, in addition to Winvic targets and procedures, are summarised in the table below, and may include contractual requirements, as well as any conditions required by the Local Authority with respect to Planning or nuisance mitigation for the local community. Reference should be made to pre-construction information and the Site Environmental Checklist **E03** for help completing this section.

For this project, the following requirements are specified:	
External (client' / enforcing authority) requirements	**Planning:** ▪ ***Condition 3:*** *The development hereby permitted shall not be carried out except in complete with the specified supporting plans and/or documents:* *Air Quality Assessment dated October 2020* *Ecology Assessment dated June 2020* *Geo-Environmental - Preliminary Risk Assessment dated June 2020* *Flood Risk Assessment dated June 2020* *Drainage Design Philosophy dated October 2020* *Noise and Vibration Assessment dated June 2020* *Heritage Impact Assessment dated September 2020* *Covering Letter - Submission of Heritage Impact Assessment dated September 2020* *Landscape and Visual Impact Appraisal dated June 2020* *Landscape Design Statement Rev. B dated November 2020* ▪ ***Condition 4:*** *The demolition management plan (as per Collins) should be adhered to.* ▪ ***Condition 5:*** *The construction management plan as submitted to and agreed in writing by the Local Planning Authority, will be adhered to* ▪ ***Condition 7:*** *The method statement and fencing details regarding the protection of trees and vegetation, as submitted to the LPA, will be adhered to* *Thereafter, the development shall be implemented in accordance with the approved details. The fencing shall be retained in position until development is completed. The area within the approved protective fencing shall remain undisturbed during the course of the works and in particular in these areas: There shall be no changes in ground levels;* ▪ *No materials or plant shall be stored;* ▪ *No buildings or temporary buildings shall be erected or stationed.* ▪ *No materials or waste shall be burnt; and.* ▪ *No drain runs or other trenches shall be dug or otherwise created, without the prior written consent of the Local Planning Authority.* *Where the arboricultural method statement recommends that the tree protection measures for a site will be monitored and supervised by an arboricultural consultant at key stages of the development, records of the site inspections / meetings shall be submitted to the Local Planning Authority.* ▪ ***Condition 8:*** *Landscaping Scheme must be followed* ▪ ***Condition 9:*** *Team to be familiar with Bird Hazard Management Plan* ▪ ***Condition 10:*** *'No bird feeding signs' to be installed where the site provides access to the canal edges.* ▪ ***Condition 12:*** *Development to be built in accordance with Ecological Enhancement plan* ▪ ***Condition 13:*** *Development to be built in accordance with Low/Zero carbon technology spec*

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- ***Condition 14:*** *Development to be built in accordance with Sustainable water management (SUDS) spec*

- ***Condition 16:*** *Prior to the commencement of the development (other than demolition and site clearance), a Risk Assessment and Method Statement shall be submitted to and approved in writing by the* ***Local Planning Authority*** *in consultation with the* ***Canals and Rivers Trust****. The Risk Assessment and Method Statement shall identify risks to the stability of canal infrastructure, the waterway environment and the health, safety and enjoyment of canal users during demolition and construction phases. It shall demonstrate that such risks have been adequately avoided, mitigated or managed through the method statement. Once approved, development shall be carried out in accordance with the Risk Assessment and Method Statement.*

- ***Condition 24:*** *the scheme to deal with contamination as submitted to the Local Planning Authority (LPA) in accordance with the Supplementary Planning Guidance Document on Land Contamination, (Remediation Strategy and Remediation Implementation Plan) shall be adhered to. Pay attention to testing and monitoring regime and verification reports.*

- *CCS 40 points*

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<tr><td>BREEAM / LEED / Passivhaus</td><td>
<table>
<tr><td>Target rating</td><td colspan="3">Very Good</td></tr>
<tr><td rowspan="3">Waste Diversion from Landfill Target</td><td>Demolition</td><td>80%</td><td></td></tr>
<tr><td>Construction</td><td>95%</td><td></td></tr>
<tr><td>Excavation</td><td>100%</td><td></td></tr>
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</td></tr>
<tr><td>Watercourses/drainage/ dewatering</td><td>

- *Dewatering in line with EA Regulatory Position Statement initially*

- *Environmental Permit required for discharge - Water to be tested for contamination. A trade effluent consent should be sought from Thames Water:*

- *Drain protection required for surface water drains at site entrance*

The proposed development is located within 15 metres of Thames Waters underground assets and as such, the development could cause the assets to fail if appropriate measures are not taken. Please read our guide 'working near our assets' to ensure your workings are in line with the necessary processes you need to follow if you're considering working above or near our pipes or other structures.https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes.

Should you require further information please contact Thames Water. Email: developer.services@thameswater.co.uk Phone: 0800 009 3921 (Monday to Friday, 8am to 5pm) Write to: Thames Water Developer Services, Clearwater Court, Vastern Road, Reading, Berkshire RG1 8DB

A Groundwater Risk Management Permit from Thames Water will be required for discharging groundwater into a public sewer. Any discharge made without a permit is deemed illegal and may result in prosecution under the provisions of the Water Industry Act 1991. We would expect the

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	developer to demonstrate what measures he will undertake to minimise groundwater discharges into the public sewer. Permit enquiries should be directed to Thames Water's Risk Management Team by telephoning 020 3577 9483 or by emailing trade.effluent@thameswater.co.uk . Application forms should be completed on line via www.thameswater.co.uk. Please refer to the Wholsesale; Business customers; Groundwater discharges section. The applicant is advised to review the Canal and River Trust's 'Code of Practice for Works affecting the Canal and River Trust and contact the Trust's Works Engineer (John.Pryer@canalrivertrust.org.uk) in order to ensure that any necessary consents are obtained and that the works are compliant. (https://canalrivertrust.org.uk/businessand-trade/undertaking-works-on-ourpropertyandour-code-of-practice). The applicant/developer is advised that any oversail, encroachment or access to the waterway requires written consent from the Canal & River Trust, and they should contact the Canal & River Trust regarding the required access agreement. The application site includes land over which the Trust has a freehold interest. The developer/applicant is advised to contact the Trust's Estates Team on 0303 040 4040 or email Bernadette.McNicholasa@canalrivertrust.org.uk in order to ensure that any necessary consents are obtained.
Waste (significant waste streams that will be generated)	▪ *Demolition Waste* ▪ *Contaminated material* ▪ *Hazardous Waste* ▪ *Sub/soils* ▪ *Timber* ▪ *Packaging* ▪ *Insulation*
Contaminated ground	▪ *Asbestos* ▪ *Hydrocarbons* ▪ *Metals* ▪ *Groundwater*
Standing heritage & archaeology	▪ *Grade II listed Stockley Park to the North of site*
Materials & design	▪ *BREAAM* ▪ *Timber CoC (chain of custody)* ▪ *Responsible sourcing of materials* ▪ *Remediation Strategy* ▪ *Materials management Plan*
Sensitive neighbours	▪ *Residential properties to the south of the Canal* ▪ *Canal and towpath* ▪ *Commercial Units* ▪ *Stockley Park* ▪ Demolition and construction works should only be carried out between the hours of 0800 and 1800 on Monday to Friday and between the hours of 0800 and 1300 on Saturday. No works should be carried out on Sundays, Public or Bank Holidays; ▪ All noise generated during such works should be controlled in compliance with British Standard 5228, and use "best practicable means" as defined in section 72 of the Control of Pollution Act 1974; ▪ Measures should be taken to eliminate the release of dust, odours and other emissions caused by the works that may create a public health nuisance. Guidance on control measures is given in "The control of dust

	and emissions from construction and demolition: best practice guidelines", Greater London Authority, November 2006; and ▪ No bonfires that create dark smoke or cause nuisance to local residents should be allowed at any time.
Ecology & biodiversity	▪ *Existing trees to be retained in line with tree protection plan* ▪ *Non-native invasive species – Cotoneaster not to be allowed to spread* ▪ *Potential fish in existing pond* ▪ *Habitat creation as part of landscaping (see Section 11 of CEMP)*

4.0 Environmental Awareness & Training

The project will require specific roles, toolbox talks and training, dependent on the works occurring on site and the Environmental Aspect & Impact assessment.

4.1 Specific Roles

The Environmental Co-ordinator and the Project Manager, listed below, will be the site based representatives. Both will be involved with the construction works throughout the project.

Role	Designated Person	Contact Number
Environmental Co-ordinator	Cristian Pruteanu	07927 500 156
Project Manager	Richard Reid	07725 791 288
Site Manager/ Agent	Cristian Pruteanu	07927 500 156
Head of Environment	Paul Thomas	07810 502 532
Environmental Manager	Amit Patel	07519 328 045
Environmental Advisor	Bernadette Anderson	07541 690 389
HSEQ Manager	Trevor Swailes	07802 878 499
Collins Demolition	Chris	
Sub-contractor 2		
Sub-contractor 3		

The following roles and responsibilities apply:

Roles	Responsibilities
Project Manager	• Secure environmental permits. • Support and check that environmental plans, associated guidance, and processes are being followed with support from the environmental manager/ advisor. • Highlight new areas of work that may present environmental risk and ensure these are proactively managed.
Site Manager/ Agent	• Highlight new areas of work that may present environmental risk. • Lead on developing new ways of working to avoid, reduce and mitigate pollution, obtain support from the environmental manager/ advisor and sign off from the HSEQ manager. • Communicate and where necessary supervise the delivery of the agreed work and any additional actions. • Act in the event of pollution incidents.
Environmental Coordinator	• Overall management of the environmental component of the project. • Manage day to day activities to ensure significant environmental effects are avoided. • Review and update the site construction environmental management plan. • To act as the main point of contact between the regulatory authorities (environment agency and local authorities) and the project on environmental issues. • Liaison with the acoustic, air, lighting and ecological consultant to the project. • To act as the main point of contact between the local populace and the project.

	• Development and delivery of environmental training (induction and toolbox talks) for site personnel and sub-contractors. • Ensure best practice is promoted at all times. • Assisting with the development of procedures that highlight the emergency response to environmental incidents. • Management of the monitoring programme, including dust, noise, smoke, light and land contamination. • Environmental incident monitoring and reporting.
Environmental manager/ advisor	• Provide support to evaluate environmental risk and advise on developing new ways of working to avoid, reduce and mitigate pollution. • Monitor, review and update environmental plans; include site-specific protection measures, discuss any actions with senior manager/advisor and HSEQ manager; agree responsible persons and timeframe for delivering on actions. • Support the development of new guidance and processes in line with the ISO14001 EMS. • Provide advice in the event of pollution incidents. • Provide environmental training to all staff.
Earthwork, Groundwork and Water Management Support	• Follow processes communicated with respect to environmental protection and specific methods of work. • Implement environmental plans and any site-specific measures. • Report to senior engineer any pollution and near miss incidents. • Act in the event of pollution incidents.
HSEQ Manager	• Lead on proposals to address strategic environmental risk and present these to the business. • Chair '4 weekly' meetings on site to evaluate environmental monitoring, incidents, non-conformances, complaints and change or variation in the working method. • Support development and sign off method statements for high-risk activities. • Ensure that update to the environmental management plans and site-specific protection measures are communicated.
Site Staff	• Follow processes communicated with respect to environmental protection and specific methods of work. • Report to their immediate supervisor any pollution and near miss incidents observed. • Act in the event of pollution incidents.

4.2 Identified Priority Toolbox Talks & Training

The following risk-based priority training needs have been identified for this project: *items below are a minimum, project team should identify further topics by assessing specific project risks.*

Toolbox Talk/Training	**Supply Chain/ Winvic**	**When Required**	**Completed (Y)**
Be A Good Neighbour	All	Induction / ongoing	Y
Fuel Storage & Handling	Groundworkers / Demolition	Induction / ongoing	Y
Water Management	Groundworkers	Induction / ongoing	Y
Managing Concrete Washout	Groundworkers	When works required	Y
Waste Management	All	Induction / ongoing	Y

NOTE: the above list of training is not exhaustive and during the life of the project, toolbox talks will be used at relevant project phases to remind the site team, supply chain and trades of best practice procedures and advice.

Toolbox Talks (TBTs) are provided on the Winvic EMS - see **B02** document. Evidence of any relevant training and/or TBTs will be recorded on the Training Attendance Register **(S43)**.

5.0 Environmental Communications and Considerations

The Project will be registered with the **Considerate Constructors Scheme**. All works will be carried out with positive consideration towards our neighbours and the environment. Works that are likely to cause an impact to our neighbours will be advertised through a mechanism to be agreed with London Borough of Hillingdon.

This mechanism may be door to door leafleting of nearby properties, advertising in a local paper, posters in prominent locations etc. and will address issues relating to programme, activities and likely effects, duration and points of contact.

Refer to document **G19** Never Event Management in the event of a serious incident (Level 1).

5.1 Environmental Observations and Incidents

Any environmental observations and incidents, such as spillages, adverse effects on wildlife or significant dust emissions, must be recorded on Info-tracker on the day of the event. Actions taken on observation/discovery of potential impact or following an incident, and to prevent a reoccurrence, should also be recorded and closed out as soon as practicable.

Observations and minor incidents are important learning opportunities, and all reporting will help continued improvements.

See Environmental – Observation & Incident Levels overleaf.

5.2 Enforcement Authority Visits

Environmental visits from enforcement authorities (e.g. Environment Agency or Local Authority) must be recorded on Notification of Authority Enforcement Contact form (**S30b**) along with corresponding actions. Actions required following the visit must be closed out as soon as practicable.

In the event of any communications from regulatory bodies regarding complaints about the site or possible enforcement action, the Environmental Manager shall be contacted immediately, who can then offer support and guidance as needed. If unavailable, please see order of preference for contact below:

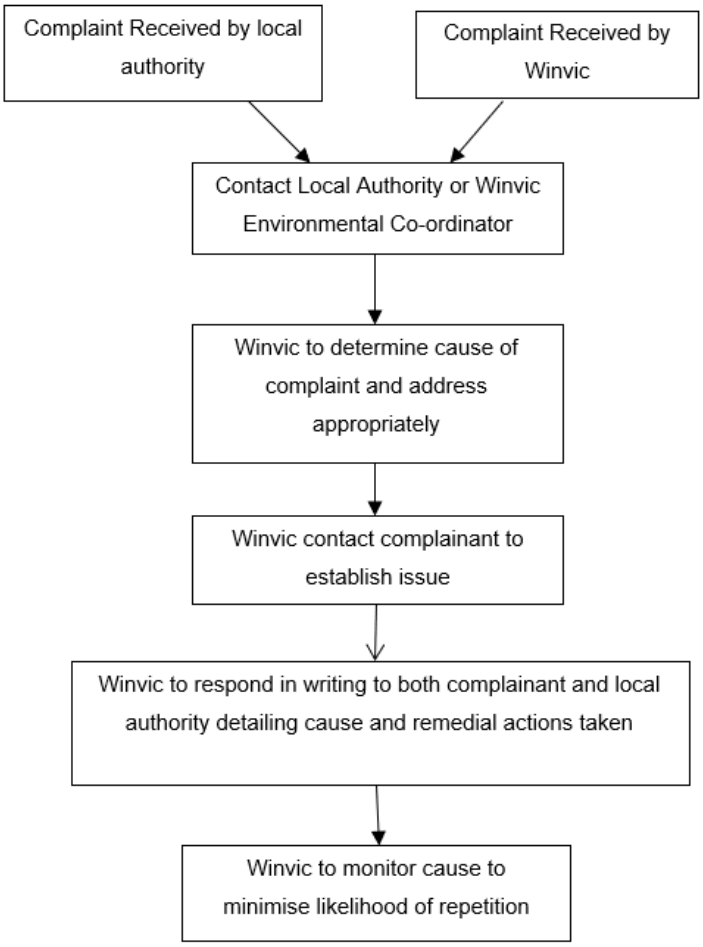
Role	Designated Person	Contact Number
Head of Environment	Paul Thomas	07810 502 532
Environmental Manager	Amit Patel	07519 328 045
Environmental Advisor	Bernadette Anderson	07541 690 389
HSEQ Manager	Trevor Swailes	07802 878 499

Refer to document **G19** Never Event Management in the event of a serious incident (Level 1).

5.3 Comments, Compliments & Complaints

Richard Reid as representative of Winvic Construction Limited will act as a central contact point for discussions with both London Borough of Hillingdon & other interested parties, including local businesses. Details of how to contact Richard Reid will be lodged with the client & representatives and advertised through a suitable mechanism to be agreed with London Borough of Hillingdon.

Should any complaints, comments or compliments arise during the course of the works, a broad procedure for dealing with them is set out in the figure below.



5.4 Environmental Site Visits and Audits

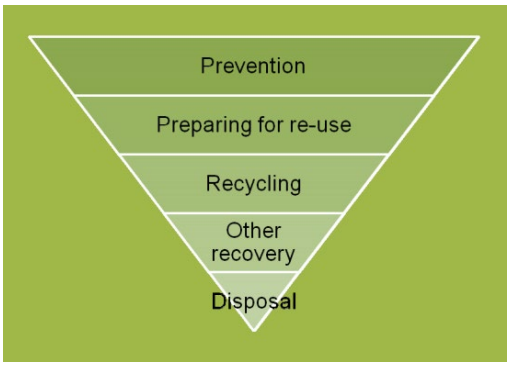
Project audits and site inspection visits will be conducted by the Environmental Manager, or competent auditors to ISO14001 standards, to ensure compliance with the environmental management system. HSEQ Managers will also include environmental observations and corrective actions as part of their site visit reports.

Environmental – Observation & Incident Levels

LEVEL 4 - OBSERVATION:	**LEVEL 3 – MINOR classified as:** Site incident or emergency which is contained on site and can be managed by onsite personnel and resources. This could also be any minor incident or equipment failure	**LEVEL 2 – SERIOUS classified as:** Site incident or emergency which requires assistance from off-site third parties and resources to manage or contain the situation, e.g. Oil spill response contractors, EA / EHO, Fire Service, etc. Including any near miss / any fire / any breach of Environmental Permit	**LEVEL 1 – MAJOR classified as:** Worksite Incident or Emergency which requires assistance from off-site third parties e.g. As per Level 2 plus: Police, Local Authority / Environment Agency
Example Environmental Incidents ➢ Inadequate storage/ disposal arrangements for hazardous substances. ➢ Poor waste segregation ➢ Failure to manage concrete / cementitious washout ➢ Poor management of fuel storage areas ➢ Failure to prepare / plan for nesting birds/bats ➢ Minor drips of oils onto ground ➢ Poor housekeeping ➢ Wildlife found on site – left undisturbed and allowed to leave of own accord (bats, fox, badger, birds) ➢ Failure to issue relevant permits	**Example Environmental Incidents** ➢ Oil or other hazardous substance spills of less than 10 litres AND / OR requiring use of spill kit ➢ Failure of equipment – e.g. poorly lined concrete washout skip / pit ➢ Minor disturbance to wildlife – birds nesting but not affecting works ➢ Unauthorised work in a Tree Protection Zone – no damage ➢ Breach of Planning Conditions ➢ Discovery or damage to archaeological artefacts ➢ Discovery of unknown contaminated land on site ➢ Nuisance - noise, vibration, dust and odour issue.	**Example Environmental Incidents** ➢ Breach of Environmental Permit condition (e.g. water quality) ➢ Contaminated run-off / water leaving site (e.g. silty water, high pH etc.) – no visual impact/wildlife unaffected ➢ Unauthorised discharge to sewer / environment about to occur or already occurring ➢ Any instance of asbestos fibre release ➢ Fire or Flood - dependent on severity, e.g. skip fire ➢ Oil or other hazardous substances spills which have or may leave the site, over, underground or in pipes (of more than 10 litres) ➢ Disturbance to wildlife – birds nesting and affecting works / schedule ➢ Damage to tree or hedge branches or roots ➢ Waste has or is about to leave site but not fully documented (e.g. no permit, exemption, waste carriers licence provided)	**Example Environmental Incidents** ➢ Breach of Environmental Permit condition leading directly to pollution event ➢ Contaminated run-off / water leaving site (e.g. silty water, high pH etc.) leading directly to pollution event ➢ Fishkill ➢ Fire or Flood - dependent on severity ➢ Oil or other hazardous substances spills which has left the site or contaminated shallow groundwater (of more than 100 litres) OR loss of control of the incident ➢ Serious damage to wildlife e.g. protected species / habitats ➢ Contamination that may or has caused damage to the environment and/or public health ➢ Waste illegally dumped – disposed at location other than documented or expected ➢ Wildlife fatality or nest/hive/den destroyed
CONTACTS (In order of Priority) ➢ Site Management Team ➢ Environmental Manager / HSEQ Manager	**CONTACTS (In order of Priority)** ➢ Site Management Team ➢ Environmental Manager / HSEQ Manager ➢ Operations Manager	**CONTACTS (In order of Priority)** **All as listed for Level 3 incident, plus:** ➢ HSEQ Director ➢ Operations Director Environmental Manager to determine requirement to contact the appropriate Regulator and/or Specialist Contractors etc. Director Responsible for HSEQ to determine requirement to contact the following: ➢ Insurers ➢ Specialist Legal Advisor	**CONTACTS (In order of Priority)** **All as listed for Level 2 incident, plus:** ➢ Board of Directors

6.0 Waste Duty of Care

When considering management options for identified waste streams, Winvic and supply chain members will adhere to the principles outlined in the waste hierarchy below.



Before waste is treated and / or removed from **Prologis GSK West London**, all subcontractors / waste contractors must provide the project team with legible copies of the following documentation:

- Environmental permits (mobile plant licences) and exemption certificates authorising on-site crushing and screening activities;
- Waste Carriers Registration;
- Environmental Permits;
- Waste exemption details (from environmental permitting)

The project team and, where applicable, subcontractors will ensure that the removal of all inert / non-hazardous waste is recorded on Waste Transfer Notes. These documents must be kept for a minimum of two years. These documents will be stored with the Project Environmental File on site.

The project team and, where applicable, subcontractors will ensure the removal of all hazardous waste is recorded on Hazardous Waste Consignment Notes. These documents must be kept for a minimum of three years. These documents will be stored with the Project Environmental File on site.

When removing hazardous waste from **Prologis GSK West London**, a premises code must be used on all Hazardous Waste Consignment Notes (Special Waste Consignment Notes in Scotland).

In Wales this is the 6-digit alpha numeric code given to the project when registering the site as a producer of hazardous waste with Natural Resources Wales. All special (hazardous) waste produced in Scotland must be consigned using a SEPA-issued consignment note or code, regardless of its final destination within the UK.

In England the format for the consignment note code can be generated by Winvic and must follow the format 'XXXXXX/YYYYY.

6.1. Waste Transfer Note (Season Ticket)

For repeat transfers Winvic will use a season ticket. This is a single WTN that can cover multiple transfers over a period of up to 12 months. Winvic will use a season ticket if all of the following stay the same:

- the parties involved in the transfer - the waste producer and the waste carrier or waste disposal business
- the description of the waste being transferred
- the place where the waste is transferred from one person to the other

If any of these conditions change, Winvic will need a new WTN.

6.2. Waste Carriers

All waste removal companies, including project supply chain partners removing their own waste from site, must be registered waste carriers. Copies of their Waste Carrier Registration Certificates must be obtained and filed within the Site Waste Management Plan.

6.2 Environmental Permits & Exemptions

The Environmental Permitting Regulations require that a premise receiving / treating waste must either hold an Environmental Permit or be registered exempt from permitting requirements.

The full permit document will be checked and held on file. Evidence of diversion from landfill will also be held on file in the Site Waste Management Plan.

Copies of their Environmental Permits / Exemptions must be obtained and filed within the Site Waste Management Plan.

7.0 Resource Efficiency

Winvic are committed to reducing our carbon footprint and resource usage. Initiatives and considerations will be implemented during the lifecycle of this project to reduce the impact the project may have on the environment.

The site team are required to collect data on the project's environmental sustainability performance.

7.1 Environmental Key Performance Indicators (eKPIs)

The following information is to be recorded:

- Waste
- Electricity
- Fuel
- Water

Meter readings (electricity, water, etc) must be entered monthly and waste information recorded on Info Tracker each month.

Reported data is to be reviewed on a monthly basis and any data outliers are to be validated to ensure readings are correct and data provided correct; discuss variance to targets with the Environmental Manager / Advisor to note reasons or review options for improvement.

7.2. Strategic Considerations:

The following will be employed to minimise the emissions and resource use of the project. These are project specific actions and should be considered within the wider Winvic Sustainability strategy.

Please add and delete as required for your specific project:

Action	Comment
Early connection to grid	To reduce the need to burn diesel in generators, thus reducing the carbon footprint
Energy efficient cabin selection	Selecting energy efficient cabins to reduce the energy consumption of welfare and offices
Sensor lighting in cabins and offices	Lights switch on and off by motion detection, reducing energy wastage
Electric charging points for vehicles	Electric vehicle charging point installed, reducing the burning of fuel for travel

Promoting double sided printing	Printers are set to default double sided printing, reducing paper usage
Bulk procurement	Ordering stock in bulk to reduce packaging waste and delivery mileage
LED lights	Using low consumption lighting in offices
Hybrid generator used	Hybrid use of battery reduces the need for diesel
Green Diesel/ HVO used on site	Green diesel option emit 90% less carbon that red diesel
Nuisance monitors powered by wind and solar	Dust and noise monitors powered by wind and solar energy reducing the need for burning diesel in a generator or using single use batteries
More than 90% waste diversion from landfill	Selecting waste management solutions to divert waste from landfill
Waste segregation on site	Segregating waste on site to improve recycling likelihood
Waste segregation in offices	Mixed dry recycling segregation in offices to improve recycling likelihood
Offsite manufacture	Reducing waste produced on site by ordering prefabricated items
Reuse of materials	Reuse of timber to reduce timber waste
Design to use all materials on site	The project has been designed as such to ensure all materials on site is kept on site thus reducing inert and spoil waste removal from site
Surface water attenuated and used for dust suppression	Surface water management plan incorporated the attenuation of water that can be used for dust suppression on site, reducing the wastage of drinking water for dust supression

8.0. Site Equipment and Maintenance

Site equipment and machinery will be inspected and recorded on the Work Equipment Inspection log (S19).

Sub-contractors will be responsible to maintain and inspect their machinery in accordance with the manufacturer's recommendations, and to record maintenance and calibration events.

9.0. Reuse of Materials

Materials can be reused on- or off-site, if they are used for the purpose of original intent, or through use of the relevant regulatory agreed protocol and codes of practice.

9.1 Materials Reuse Records

Records of material reuse must be kept, with evidence for regulatory assurance held in the Project Environmental File, as well as to demonstrate positive efforts taken to avoid waste creation. Records will summarise materials provided to exchange/reuse networks, charitable and community groups, and reuse with other Winvic projects, as well as waste recycling with supplier takeback scheme use.

9.2 Reuse of Soils / Aggregates

Contaminated Land: Applications in the Real Environment (CL: AIRE) - an independent body that promotes the sustainable remediation of contaminated land and groundwater. CL: AIRE has developed the Definition of Waste Code of Practice (DoWCoP) that when followed, allows suitable materials to be de-classified as waste and reused on development sites.

The DoWCoP should be considered for all works generating large quantities of surplus soils as significant cost savings can be achieved. Any project wishing to use CL: AIRE and Materials Management Plans must first contact their Environmental Manager.

The following opportunities for materials reuse have been identified on this project at Pre-Construction..

Note: if none of the below apply, please insert “NA”.

Site won material

Material Prediction	Volume to be generated	Volume to be reused onsite	Volume to be exported offsite	Control allowing reuse
Topsoil				Choose an item.
Subsoil / made ground				Choose an item.
Aggregates	17012	17012	0	Aggregate QP

Imported material

Material Prediction	Volume to be Imported	Source of Import	Documentation Provided	Control allowing reuse
Topsoil				Choose an item.
Subsoil / made ground				Choose an item.
Aggregates	9719	9719	TBC	Aggregate QP

It is the responsibility of the project team to gather supporting documentation for recycled materials. These will be retained on file in the Project Environmental File.

9.3 Recycled Aggregates

Recycled aggregate should be given preference over virgin aggregate wherever such material can meet the required specification for use. Recycled aggregate generally has less impact on the

environment than virgin aggregate, which is a finite resource. Using recycled aggregate (manufactured from concrete, bricks, tiles, or ceramics) reduces waste sent to landfill and supports the principles of the waste hierarchy (reduce, reuse, recycle, dispose).

Recycled aggregate can be imported or produced on site from suitable demolition material. In either case, recycled aggregate is classed as waste, except where:

- it has been produced to an aggregates product standard e.g. BS EN 13242, is compliant with the specification requirements e.g. SHW (Specification for Highway Works) Series 600 and is produced in accordance with the Quality Protocol for Aggregates from Inert Waste

or

- it forms part of a MMP (Materials Management Plan) under the CL:AIRE Definition of Waste Industry Code of Practice.

Procurement
Where recycled aggregate will be imported, it should be specified that the material must be compliant with the requirements of the product standard, specification, and the Aggregate Quality Protocol. Evidence of this will be required.

Recycled Aggregate Documentation
Whether imported or generated on site, to demonstrate that recycled aggregate is compliant with the product standard, required specification and the Quality Protocol, the following, where appropriate, must be obtained and retained onsite in the Project Environmental File:

- Evidence of where material has been the sourced
- A copy of the permit for either a) the mobile plant used to crush / screen the recycled aggregate, or b) the Environmental Permit for the waste facility producing the aggregates
- A copy of the producers' method statement and factory production control (FPC) system for the production of aggregates from waste
- Material test certification that shows full compliance with product standard and specification requirements (e.g. Type 1 or 6F5 – note grading certificates should be no longer than 3 months old)
- Records of regular inspections of material for consistency / quality
- A delivery note for each load of recycled aggregate delivered to site (this must not be a waste transfer note and should include a statement of Quality Protocol compliance)
- Evidence that the original source of the material used to produce the recycled aggregate contained no asbestos e.g. it is from a demolished building that is certified asbestos free (a copy of the certificate should be obtained).

10.0 Water Management

When considering management options for surface water management, Winvic will adhere to the principles outlined below.

Where applicable, all projects will have a site-specific Surface Water Management Plan.

10.1 Surface Water Discharge Consent

EA Regulatory Position Statement

Guidance provided in the Environment Agency regulatory position statement (RPS) for temporary dewatering from excavations to surface water states that only uncontaminated water consisting of clean and clear rainwater or infiltrated groundwater may be released from a site for up to three consecutive months under exemption.

https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits

In order to qualify for the exemption a series of conditions aimed to prevent pollution in the receiving water body must be met. Consequently, the discharge must not:

- result in muddy water
- contain any chemical agent such as a coagulant or flocculant
- contain any contaminant such as oil
- contain concrete wash water even if it has been treated
- contain site drainage from surfaces such as haul roads, storage areas
- spread invasive plants animals or diseases
- be within or close to a sensitive ecological site
- Providing the site can meet with the requirements of the RPS, dewatering of open excavations will be undertaken in accordance with its requirements.

Bespoke Permit Considerations

In the event of dewatering activities exceeding a period of 3 months, or treatment being required (i.e., attenuation and settlement, flocculation to remove colloidal clays) a bespoke environmental permit will be required.

No flocculation is going to be used. The use of the new onsite SUDS will be utilised or the foul system (with a trade effluent in place).

11.0 Biodiversity Action Plan

The UK Government and the devolved administrations have each put in place policies and legislation that focus on the maintenance, protection, and enhancement of our environment. They share the common goal of protecting and enhancing biodiversity through habitat creation and management.

Winvic recognises the key role that they will play in maintaining and producing resilient ecological networks of habitats across the country that are resilient to future change.

This Biodiversity Action Plan (BAP) should be completed at two project stages: Preconstruction, and Operations.

The BAP should demonstrate project commitment to mitigating harmful impact on existing site biodiversity as well as commitment towards maximising enhancement measures in accordance with the Winvic Environmental Policy **(E01)** and project specific requirements, either on or off site.

Actions	**Mitigation**	**Enhancement**	**Eradication**	**Requirement by Planning / Ecologist / BREEAM / Winvic**	**PreCon Status** *(indicate programme date, whether in progress or completed, who's responsible for collating evidence)*	**Operations Status** *(indicate programme date, whether in progress or completed, who's responsible for collating evidence)*
Retain trees and vegetation in line with TPP	✓			Planning	Fencing to be installed before construction – Site team responsible to inspect and maintain	Fencing to be installed before work commences on site
grassland areas will be sown with an ecological grassland seed mix & wildflower seed mix, to increase biodiversity		✓		Ecologist	See landscaping plan	Landscaping phase

Actions	Mitigation	Enhancement	Eradication	Requirement by Planning / Ecologist / BREEAM / Winvic	PreCon Status *(indicate programme date, whether in progress or completed, who's responsible for collating evidence)*	Operations Status *(indicate programme date, whether in progress or completed, who's responsible for collating evidence)*
a reed bed is proposed adjacent to Stockley Road bridge		✓		Ecologist	See landscape design	Landscaping phase
native marginal planting which will provide opportunities for bats, birds reptiles, amphibians and invertebrates		✓		Ecologist	See landscape design	Landscaping phase
Bat boxes to be installed in retained trees		✓		Ecologist	See landscape design and ecology report	Landscaping phase
Hedgehog gateways to be installed in fencing		✓		Ecologist	See landscape design and ecology report	Landscaping phase
Tree clearance wood to be placed in woodland etc to create habitat for reptiles and invertebrates		✓		Ecologist	See landscape design and ecology report	Landscaping phase

12.0 Nuisance Management

12.1 Noise and Vibration

The recommendations for the control of noise and vibration on construction and open site in the approved code of Practice BS 5228 will be adopted.

Typical Plant will include Excavators, dozers, crushing machine, Cranes, Dumpers, Scissor Lifts, and Cherry Pickers etc.

To establish the noise emission levels during the works, a programme of noise monitoring will be carried out for the first week of each phase of works to determine the noise levels received at the closest receptors.

The principal objectives of the monitoring will be to identify where additional control measures are required, or where those measures have not been put in place. All measured noise levels will be recorded and retained on-site for the duration of the construction programme.

If construction noise or vibration emissions have been identified by the local authority as a potential source of annoyance to the local population, a Noise and vibration management plan and dust monitoring measure must be compiled and maintained.

The following parameters will be used to determine the severity of the nuisance:

Noise Level above baseline recorded:

0 - <3 dBA	>3 - <5 dBA	>5 - <10 dBA	≥10 dBA
Negligible	Low	Moderate	Major

The vibration results will be assessed as follows:

<0.3 mm/s	>0.3 - <1 mm/s	>1 - <10 mm/s	≥10 mm/s
Negligible	Low	Moderate	Major

Mitigation methods would include:

General Considerations	Display contact details of contractor and responsible site manager as well as working hours and other site information on the hoarding. Locate the site access away from noise sensitive receptors. Keep internal haul routes well maintained and avoid steep gradients. Limit material and plant loading and unloading to normal working hours. Reduce loading / unloading heights for muck away and material movement to mitigate impact noise. Handle all material in a manner that minimises noise.
	Maximise the screening effect of buildings and temporary stockpiles through programming / phasing of works Adhere to 'quiet hours' as agreed and/or adopted by the local authority. Minimise opening and closing of site access gates through good coordination of deliveries and vehicle movements.
Plant & Equipment	Ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC, United Kingdom Statutory Instrument (SI) 2001/1701. Follow manufacturer's guidance and measures to operate plant and equipment and use it in a manner which minimises noise. Use all plant and equipment only for tasks for which it has been designed for. Shut down all plant and equipment in intermittent use in the intervening periods between works or throttle it down to a minimum.
	If possible, power all plant and equipment by mains electricity or other quieter technology rather than locally powered sources such as generators. Maximise screening from existing features / structures, or employ the use of full or partial enclosures for fixed plant. The enclosures should be well maintained. Fixed plant can include generators, compressors, pumps, batching plant and ventilation plant. Locate and orientate fixed or semi-static plant away from noise sensitive receptors. Consider additional measures to control noise for any plant required to operate on a 24 hour basis; for example, dewatering pumps or generators used to power site security. Vibratory compaction equipment shall be used in a mode which minimises the incident vibration at nearby residential and other sensitive properties.
Vehicle Movements	Ensure all vehicle movements occur within normal hours or at agreed times, taking into account the primary function of sensitive receptors in the vicinity (i.e. avoiding school drop-off/pick-up periods). Maximise the reuse of any waste arising on site to minimise vehicle movements. Plan deliveries and vehicle movements so that vehicles are not waiting or queuing on the public highway. If waiting or queuing is unavoidable then engines should be turned off. Plan site layout to ensure that reversing is kept to a practicable minimum, and where practicable eliminated altogether. Where reversing is required, use broadband reverse sirens /alarms or, where it is safe to do so, disengage all sirens and alarms and use banksmen. Where site space is limited and volume of vehicles attending site is high, seek vehicle holding bay(s) to use with 'Just in time' delivery management systems Space planning for stockpiling of material (over weekends and, evening and nights) within the site to allow removal during normal working hours only.

Demolition	Employ the use of acoustic screening; this can include planning the demolition sequence to utilise screening afforded by buildings to be demolished. Avoid demolition activities outside of normal working hours through the use of temporary measures, such as safety / protection fences, to enable works to be conducted during normal working hours. Utilise low impact demolition methods such as non – percussive plant wherever practicable Use rotary drills and "bursters" activated by hydraulic or electrical power, or chemically based expansion compounds, to facilitate fragmentation and excavation of hard material. Avoid the transfer of noise and vibration from demolition activities to adjoining occupied buildings through cutting any vibration transmission path or by structural separation of buildings.
Ground works / Piling	Avoid percussive piling wherever possible. Adopt the following hierarchy of groundwork / piling methods, in order of preference to minimise the impact of piling, if ground conditions, design and safety allows: · Pressed-in methods, e.g. Hydraulic jacking · Auger / bored piling · Diaphragm Walling · Vibratory piling or vibro-replacement · Driven piling or dynamic consolidation Consider the location and layout of the piling plant for efficient operation and potential noise control of generators and any electric or hydraulic motors used by plant. Where impact piling is the only option, utilise a non-metallic dolly between the hammer and driving helmet, or enclose the hammer and helmet within an acoustic shroud. Consider concrete pour sizes and pump locations. Plan the start of concrete pours as early as possible within normal working hours to avoid overruns. Where obstructions are encountered stop works and review approach; adopt work methods that minimise noise and vibration. Prepare pile caps using methods / procedures which minimise the use of breakers, e.g. using hydraulic splitters to crack the top of the pile.
Construction Phase	When working within a building ensure all openings (e.g. windows and doors) are closed or sealed up. Plan the site layout to maximise screening from existing features / structures. Where on-site fabrication is unavoidable, all high noise level works should be carried out within normal hours. Consider concrete pour sizes and plan the start of concrete pours as early as possible within normal working hours to avoid overruns. Obtain and agree a protocol with concrete suppliers and sub-contractor with measures to ensure that as far as practicable overruns on concrete pours do not occur.
Monitoring	Establish pre-existing levels of ambient noise. Carry out attended noise monitoring at the start of any new phase of works, to check source sound emission data from plant on-site and following any complaints. Carry out regular on-site observation monitoring and checks/ audits to ensure that BPM is being employed at all times. Such checks should include: · Hours of working · Presence of mitigation measures, equipment (engine doors closed, airlines not leaking, etc.) and screening (location and condition of local screening, etc.) · Number and type of plant · Construction method, and · Where applicable, any specific Section 61 consent conditions. The site reviews should be logged and any remedial actions recorded. Monitor noise & vibration continuously during demolition, piling, excavation and sub- and superstructure works at agreed locations and report to the local authority at agreed intervals. Appraise and review working methods, procedures and logistics on a regular basis to ensure continuous development of BPM. Monitor noise and vibration to trigger site action; where levels exceed the triggers then inform the local authority, review work practices and agree additional mitigation measures with the local authority.

Communication and Liaison	Develop a Community Liaison Plan. Develop a Complaint Procedure with timescales for responses and a nominated liaison person to engage with residents and to handle complaints. Display contact details for the environmental coordinator prominently on the site hoarding. Brief all site staff regarding the complaints procedure and mitigation requirements and their responsibilities to register and escalate complaints received. Send regular updates at appropriate intervals to all identified affected neighbours via newsletter and posting information on the site hoarding. Also make information available via email when requested. Arrange meetings and communicate on a regular basis with neighbouring construction sites to ensure activities are coordinated to minimise any potential cumulative issues. Advise neighbours about reasons for and duration of any permitted works outside of normal working hours.

12.2 Dust Management

A Dust management plan and dust monitoring measure will be compiled and maintained.
The following parameters will be used to determine the severity of the nuisance:

IF USING PM10 or PM2.5 MONITORS

PM10 and PM2.5 readings will trigger site action levels as follows:

% Change in Concentration			
1%	2-5%	6-10%	>10%
Negligible	Low	Medium	High

IF USING DUST DEPOSITION MONITORS

Site action triggers will be as follows:

- **Frisbee-type Deposition Gauges:** 200 mg/m2 /day, averaged over a 4-week period
- **Glass Slide Deposit Gauges**: 25 soiling units (su) per week, measured as a running 4-week average
- **Sticky Pads:** 5% EAC/day, measured over a 1-week period

IF USING DUST FLUX MONITORS

- Sticky pads where both EAC and AAC are measured over a 1-week period as shown in Table 2 below. It is suggested that a Site Action Level is “High” or above.

		AAC Dust Covering				
EAC Dust Soiling		Level 0 – <80% / Interval	Level1 – 80-95% / Interval	Level 2 – 95-99% / Interval	Level 3 – 99-100% / Interval	Level 4 – 100% over 45° / Interval
	Level 0 – <0.5% per day	Very Low	Very Low	Very Low	Low	Medium
	Level 1 – 0.5-0.7% per day	Low	Low	Low	Medium	High
	Level 2 – 0.7-2% per day	Medium	Medium	Medium	High	High
	Level 3 – 2-5% per day	High	High	High	High	Very High
	Level 4 – >5% per day	Very High	Very High	Very High	Very High	Very High

All medium trigger levels must be recorded as observations on InfoTracker and all High or Very High trigger levels must be recorded on InfoTracker as incidents, investigated and closed out.

The following will be adhered to ensuring the minimisation of dust nuisance on this project:

Site Monitoring Controls	• Employ best practice methods at all times. • Take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment. Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary. • Keep an accurate log of complaints from the public. • Determine the prevailing wind direction across the site using data from a nearby weather station. Ideally a minimum of 12 months data should be used. **• If measuring along a transect:** - Set up a transect across the site according to the direction of the prevailing wind. - Operate a minimum of two automatic particulate monitors to measure PM10 levels at either end of the transect - either inside or outside the site boundary. These instruments should provide data that can be downloaded in real-time by the local authority. **• If monitoring at sensitive receptors:** - Identify which location(s) need to be monitored and set up an automatic particulate monitor at each of these to measure representative PM10 levels. These instruments should provide data that can be downloaded in real-time by the local authority. • If relevant, supplement monitoring with hand held monitors to get on the spot readings at selected points, such as close to sensitive receptors. • Carry out dust deposition and soiling rate assessments following recommended procedures • Carry out a visual inspection of site activities, dust controls and site conditions and record in a daily dust log. • Identify a responsible person on-site for dust monitoring who can access real-time PM10 data from automatic monitors (e.g., at hourly or 15 minute intervals). Ensure that adequate quality assurance/quality control is in place. • Agree a procedure to notify the local authority, so that immediate and appropriate measures can be put in place to rectify any problem. Alert mechanisms could include email, texts or alarm systems. • Set up 24-hour phone hotlines so that residents can complain about high dust or PM10 levels directly to the developer. Consider circulating summaries of monitoring results to the local community.
Site Preparation/ Enabling	• Machinery, fuel and chemical storage and dust generating activities should not be located close to boundaries and sensitive receptors if at all possible. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. • Avoid site runoff of water or mud. • Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below. • Cover, seed or fence stockpiles to prevent wind whipping.
Communic ations	• Develop and implement a stakeholder communications plan that includes community engagement before work commences on site • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. • Display the head or regional office contact information
Site Management	• Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken on InfoTracker. • Make the complaints log available to the local authority when asked. • Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation on InfoTracker • Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.

Trackout	• Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use. • Avoid dry sweeping of large areas. • Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. • Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. • Record all inspections of haul routes and any subsequent action in a site log book. • Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. • Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). • Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. • Access gates to be located at least 10 m from receptors where possible.
Haulage Routes - Surface of roads	• Use consolidated surfaces on roads near to residential areas. • Hard surface all major haul routes through the site (e.g. use recycled rubber blocks, concrete blocks or tarmac). • Regularly inspect haul routes for integrity and repair if required. • When the haul route changes, re-use surface where possible. • As for medium risk sites. In addition, lay roads to a camber to prevent puddles.
Haulage Routes - Damping Down Activities	• Use agreed wet cleaning methods or mechanical road sweepers on all roads during periods of dry weather. • Clean road edges and pavements using agreed wet cleaning methods. • Use agreed wet cleaning methods or mechanical road sweepers on all roads at least once a day or consider using fixed or mobile sprinkler systems. • Provide hardstanding areas for vehicles and regularly inspect and clean these areas. • Use fixed or mobile sprinkler systems to clean roads at least once a day. • Where possible use sustainable sources of water, such as from dewatering or extraction. • Contact the Environment Agency to recycle any collected material or run-off water - according to legal requirements. • Provide hardstanding areas for vehicles and regularly inspect and clean these areas.
Haulage Routes - Vehicle Movements	• All vehicles should switch off engines - no idling. • Clean or wash all vehicles effectively before they leave a site if there is a risk of affecting nearby sensitive receptors. • All loads entering and leaving site to be covered. • Wheel wash vehicles before they leave a site. • Hard surface haul routes and clean them effectively • Impose an appropriate speed limit around site. • Fixed wheel and/or vehicle washing at site exit if feasible. • Use fixed or mobile sprinkler systems to clean internal and external roads at least once a day.
Mobile Crushing Plant	• Notify the local authority if a crusher is to be used as it has a duty to inspect the process. Mobile crushing plants are authorised as Part B processes, even if they are only temporary. • Keep a copy of the permit on-site and adhere to the conditions therein at all times.
Excavation and Earthworks	• All dusty activities should be damped down, especially during dry weather. • Temporarily cover earthworks if possible. • Minimise drop heights to control the fall of materials. • Re-vegetate earthworks and other exposed areas to stabilise surfaces. • Only remove secure covers in small areas during work and not all at once. • Use hessian, mulches or tackifiers where it is not possible to revegetate or cover with topsoil.

Stockpiles and Storage Mounds	• Make sure that stockpiles exist for the shortest possible time. • Do not build steep sided stockpiles or mounds or those that have sharp changes in shape. • Whenever possible keep stockpiles or mounds away from the site boundary, sensitive receptors, watercourses and surface drains. • Wherever possible, enclose stockpiles or keep them securely sheeted. • Take into account the predominant wind direction when siting stockpiles to reduce the likelihood of affecting sensitive receptors. • Seed, re-vegetate or turf long term stockpiles to stabilise surfaces or use surface binding agents that have been approved by the Environment Agency. • Re-use hard core material where possible to avoid unnecessary vehicle trips. • Erect fences or use windbreaks such as trees, hedges and earth-banks of similar height and size to the stockpile to act as wind barriers and keep these clean using agreed wet methods. • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place. • Store fine or powdery material (under 3mm in size) inside buildings or enclosures. • Contact the Environment Agency if you need an exemption to stockpile waste material, whose disposal is subject to the Waste Management Licensing Regulations (WMLR), 1994. The treatment or ultimate disposal of this material is subject to the regulations.
Chutes and Skips	• Securely cover skips. • Minimise drop heights to control the fall of materials. • Regularly damp down surfaces with water. • Completely enclose skips whenever possible. • Hard surface areas where skips are to be stored. • Reduce drop heights by using variable height conveyors or chutes.
Dealing with Spillages	For all sites, the following measures should be followed: • use bunded areas wherever practicable • regularly inspect the site area for spillages • have spillage kits readily available • clean spillages using agreed wet handling methods • inform the Environment Agency if harmful substances are spilled.
Demolition Activities	Potential dust hazards can be assessed according to BS 6187: Code of Practice for Demolition19, which includes all aspects of project development and management from demolition techniques to re-using or recycling materials. The demolition of buildings may result in a site being classified as medium or high risk during this activity. Any asbestos must be dealt with by a registered contractor at all times and removed according to appropriate regulations and approved codes of practice/HSE guidance such as HSG24820 and MDHS10021. **Other examples of best practice in demolition:** • sheet and screen buildings with suitable material and where possible strip inside buildings before demolition begins • ensure that a specialist contractor removes any asbestos before demolition • materials should be removed from site as soon as possible • avoid explosive blasting where possible and consider using appropriate manual or mechanical alternatives • bag and remove any biological debris or damp down before demolition. Developers should refer to Sections 80-82 of the Building Act 1984 and the ICE Demolition Protocol. • Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust). • Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
Hazardous or Contaminated materials	Under the Control of Substance Hazardous to Health (COSHH) Regulations, 2002, developers must ensure that they take into account risks to the workforce from exposure to any harmful substances generated by work activities. Construction sites are often associated with activities that emit volatile organic compounds (VOCs), such as use of paints, adhesives, bitumen products and concrete and timber treatments. Emphasis should be placed on preventing or reducing emissions at source and where this is not possible personal protective equipment may be appropriate.

Plant and vehicle controls	• No vehicles or plant will be left idling unnecessarily. • NRMM (vehicles and plant) should be well maintained. Should any emissions of dark smoke occur (except during start up) then the relevant machinery should be stopped immediately and any problem rectified before being used. • Engines and exhaust systems should be regularly serviced according to manufacturer's recommendations and maintained to meet statutory limits/opacity tests. • All vehicles should hold current MOT certificates where required. • Vehicle exhausts should be directed away from the ground and positioned so they are not directed at site entrances. • Locate plant away from the boundaries close to residential areas. • Reduce the number of vehicle movements through better planning. • Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate) • Clearly label all vehicles associated with the contract. • Where works on site occur close to residential or other sensitive receptors near the site boundary, non-essential vehicles and machinery should not enter these areas. • Control queuing or parking of vehicles outside the site, both during and before the site opens. • Avoid use of diesel or petrol powered generators by using mains electricity or battery powered equipment where possible and if safety concerns can be overcome.

12.3 Lighting

During the construction phase the temporary site lighting will adhere to the best practice guidance outlined in Guidance Notes for the Reduction of Light Pollution (Institution of Lighting Engineers, 2000) including the following:

- Lighting will be switched off when not required for safety or security;
- Temporary lighting will be directed into the site away from residential areas;
- Wherever possible lighting will be directed downwards to illuminate the target area to reduce spill light to a minimum;
- Specifically designed lighting equipment will be installed to minimise the spread of light near to or above the horizontal;
- To keep glare to a minimum, the main beam angle of all lights directed towards any potential observer will be kept below 70 degrees. Higher mountings used for the lighting will lower the main beam angle reducing potential glare;
- Wherever practicable, floodlights with asymmetric beams will be used.

13.0 Associated documents

All associated environmental documentation will be kept and updated on Winvic's internal document management system Union Square.

The following documents should be considered on this project:

Add and delete as required for your project

Document Number	Document Name	Document Date
SWMP01	Site Waste Management Plan	
E03	Pre-Start Environmental Checklist	
E06	Environmental Aspect and Impact Register	
E08	Water Quality Monitoring	
E11	Dust, Noise and Vibration Monitoring	
E12	Dust Management Plan	
MMP	Materials Management Plan	

14.0 Project Closeout

Item	Actions	Yes/NA
DoWCoP / MMP / Verification Report	Have all documentation / records been completed for the reuse of excavated material?	
	Has the required information been returned to the appropriate consultants? CL:AIRE notified?	
U1 Exemption	Have record logs been completed for the reuse of excavated material (demonstrating <1,000t used)?	
	Are all waste transfer notes held on file / INFOTRACKER?	
Aggregate Quality Protocol	Has the appropriate information been provided demonstrating compliance with the Aggregate Quality Protocol?	
Environmental Performance (eKPIs)	Have all WTNs / HWCNs been added to Info-tracker?	
	Are the Waste Management Service Provider diversion from landfill figures provided/accurate? Has the final project C/D/E performance data been received from each provider?	
	Has all diesel/water usage been recorded on Info-tracker?	
	Has the final electric meter reading/s been entered onto Info-tracker?	
Incidents & Communication	Have all environmental incidents, Enforcement Authority visits been recorded and closed out?	
	No. L1 & 2 incidents | **No. L3 incidents** | **No. L4 observations**	
	No. of complaints	

Appendix A – Winvic's ISO 14001 certification

British Assessment Bureau

Certification is conditional on maintaining the required performance standards throughout the certified period of registration
The British Assessment Bureau, 30 Tower View, Kings Hill, Kent, ME19 4UY

The management system of Certificate Number **2032456**

Winvic Construction Limited

Brampton House, 19 Tenter Road, Moulton Park, Northampton, NN3 6PZ

has been assessed and certified as meeting the requirements of

ISO 14001:2015

for the following activities

The design and project management of construction projects for the private sector and commercial clients throughout the United Kingdom. For the purpose of SSIP this Organisation has been assessed against a Principal Contractor and Principal Designer; CDM role.

Further clarifications regarding the scope of this certificate and the applicability of requirements may be obtained by consulting the certifier.

UKAS MANAGEMENT SYSTEMS
8289

Valid from
Initial Certification: 17 September 2009
Latest Issue: 06 July 2021
Expiry Date: 17 September 2024
subject to annual assessments

Authorised by

Mike Tims
Chief Executive Officer

www.british-assessment.co.uk

Certificate issued by Amtivo Group Limited, trading as British Assessment Bureau

To confirm the 'Live Status' of this certificate please use the 'Certificate Verification' tool located at www.british-assessment.co.uk