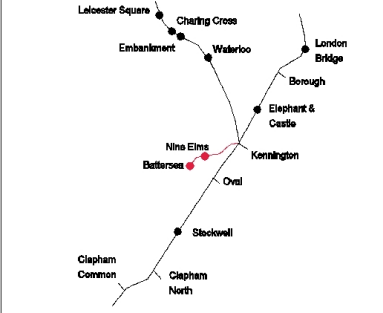


**Location Plan**



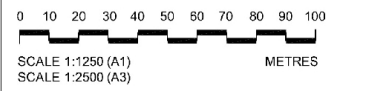
**Notes:**

- 1. DO NOT SCALE FROM THIS DRAWING.

**Key:**

- STATION AND ANCILLARY STRUCTURES
- TUNNELS AND SHAFTS
- DEEMED PLANNING PERMISSION BOUNDARY

This drawing is illustrative only.



Rev	By	Chkd	App	Date	Description
03	JP	CB	SL	27.03.13	FORMAL ISSUE.
					DRAWING TITLE CHANGED.
02	JP	CB	SL	08.03.13	DEEMED PLANNING PERMISSION BOUNDARY ADDED.
					DEEP DATUM POINTS ADDED.
01	JP	CB	SL	30.01.13	FIRST DRAWN

Client: **Transport for London**



Project: **NORTHERN LINE EXTENSION TO BATTERSEA TWAO FOR TFL**

**TUNNEL AND SHAFTS SHEETS SHEET 7 OF 7**

Suitability: **S4 FORMAL ISSUE TO CLIENT**

Drawn by: **DT** Date: **24/03/2013**  
 Checked by: **TW** Date: **24/03/2013**  
 Approved by: **HW** Date: **24/03/2013**

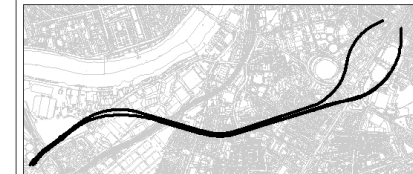
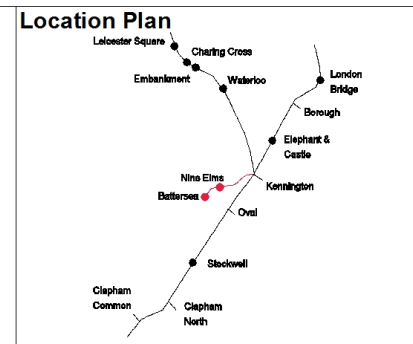
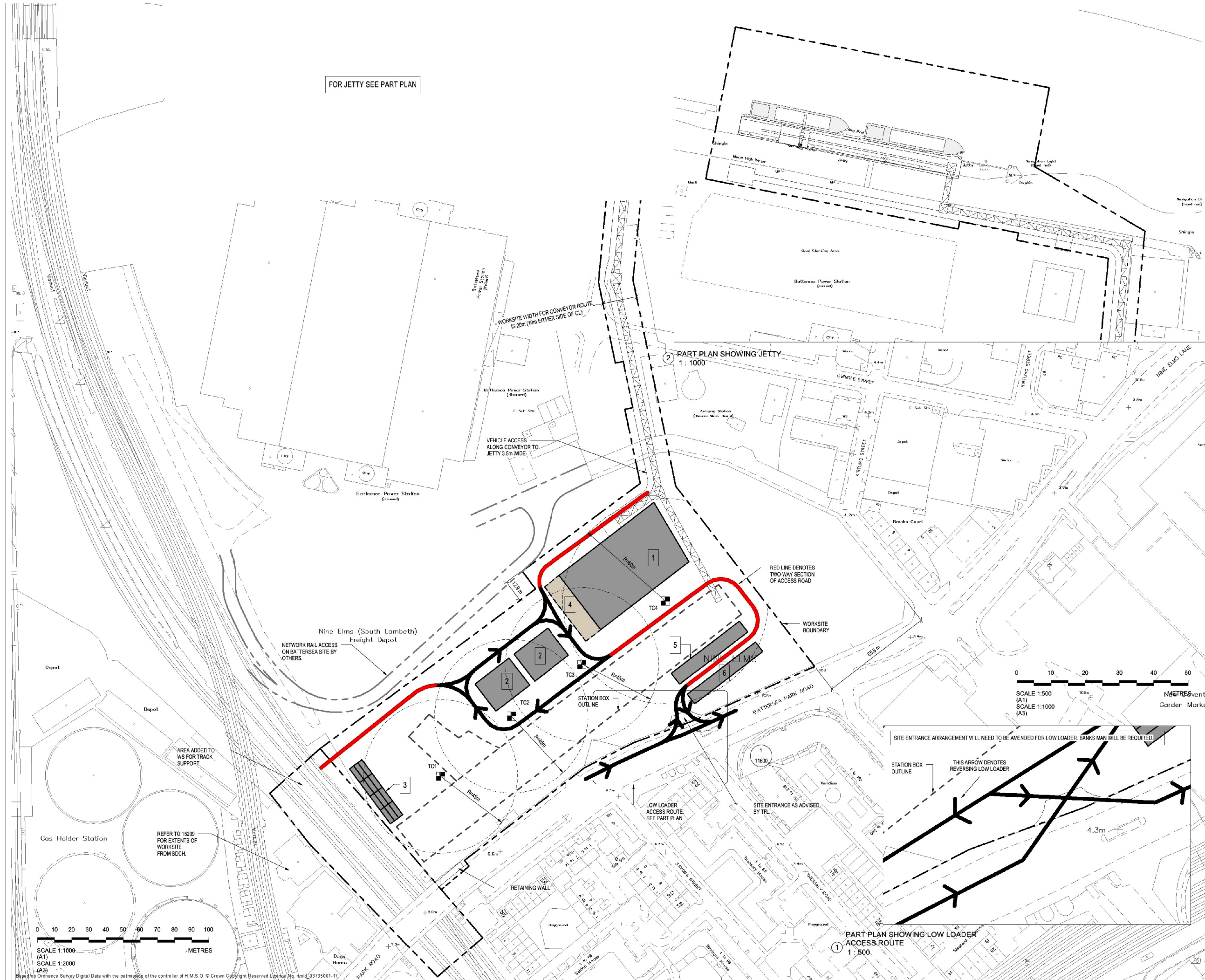
Drawing Scale: **As indicated @ A1**

Drawing Ref: **GRNLEB-HGL-TU-XX-DR-TUN-50207** Revision: **01**

Drawing No: **Figure 4-1**

**PLANNING DIRECTION DRAWING NUMBER 08**





- ### Notes:
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
  - DO NOT SCALE FROM THIS DRAWING.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH JETTY STUDY DRAWING NUMBERS:  
GRNLEB-HOL-ST-XX-DR-OTH-21402  
GRNLEB-HOL-ST-XX-DR-OTH-21403  
GRNLEB-HOL-ST-XX-DR-OTH-21404  
GRNLEB-HOL-ST-XX-DR-OTH-21407
- ### KEY
- 1 66m x 40m SPOIL HEAP
  - 2 25m x 20m BENTONITE FARM (2 No.)
  - 3 12 No. 10m x 3m SINGLE STOREY ACCOMMODATION MODULES
  - 4 POSSIBLE EXTENSION TO SPOIL HEAP - NEW SIZE 76m x 40m
  - 5 50m x 8m POSSIBLE UNLOADING ZONE
  - 6 50m x 7m PRECAST CONCRETE TUNNEL RING STORAGE
- TC1 PROPOSED TOWER CRANE LOCATION
- PROPOSED MAIN STANDARD VEHICLE ACCESS, BATTERSEA PARK ROAD (A3205) (BLACK DENOTES ONE-WAY CARRIAGEWAY - RED DENOTES TWO-WAY CARRIAGEWAY)

Client:  
**Transport for London**

**URS**  
studiodareARCHITECTS  
Buro Happold Consulting Engineers

Halcrow Group Ltd.  
ACH2M HILL COMPANY  
Elms House, 43 Brock Green  
Hammersmith, London W6 7EF  
TEL: 020 3479 8000  
FAX: 020 3479 8001  
www.halcrow.com

Project:  
**NORTHERN LINE EXTENSION TO BATTERSEA TWAO FOR TIL**

**ILLUSTRATIVE BATTERSEA STATION WORKSITE DRAWING STRUCTURAL WORKS**

Suitability:  
**S4 FORMAL ISSUE TO CLIENT**

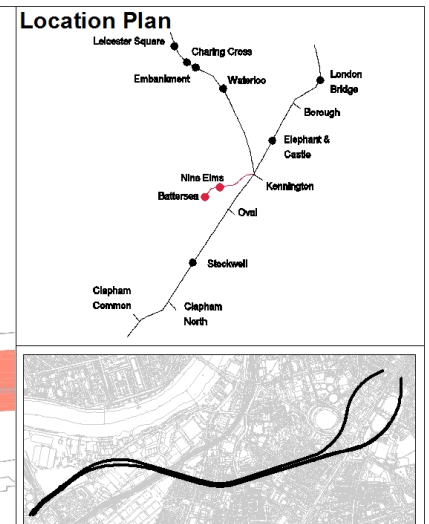
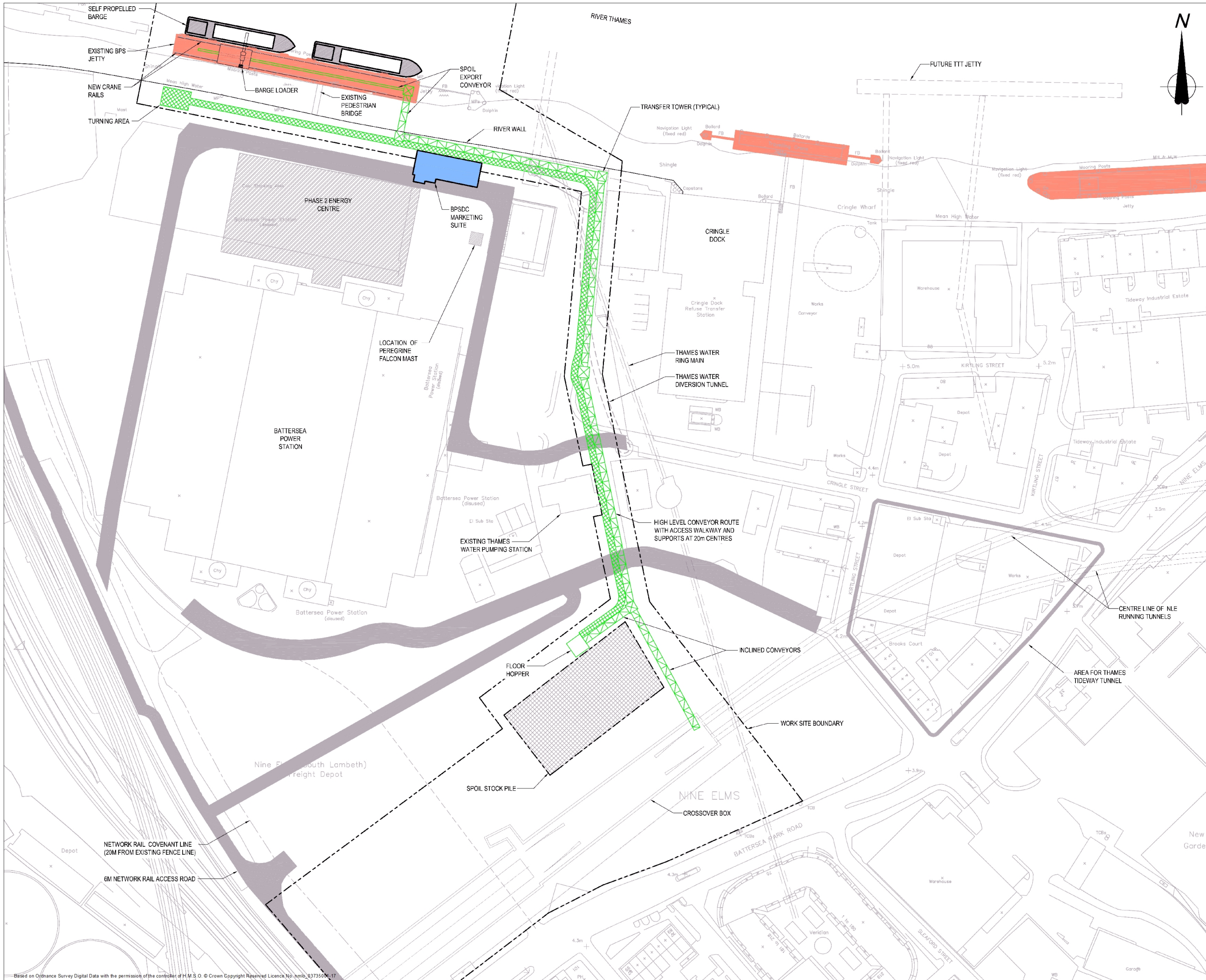
Drawn by: DT Date: 24/03/2013  
Checked by: TW Date: 24/03/2013  
Approved by: HW Date: 24/03/2013

Drawing Scale: As indicated @ A1

Drawing Ref: GRNLEB-BHD-ST-XX-DR-STR-11600  
Revision: 01

Drawing No: Figure 4-2





- Notes:**
- DO NOT SCALE FROM THIS DRAWING.
  - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
  - ASSUMPTIONS FOR CONVEYOR ROUTE:
    - CONVEYOR GANTRY 5.5m WIDE
    - TRANSFER TOWERS 5.0m x 5.0m
    - TRANSFER TOWER FOUNDATIONS 5.0m x 6.0m
    - INTERMEDIATE SUPPORTS AT 20m CENTRES
    - VEHICLE ACCESS ROUTE 3.5m WIDE
    - EXISTING CRANES ON JETTY TO BE REMOVED PRIOR TO INSTALLATION OF CONVEYOR SYSTEM
- Key:**
- EXISTING JETTIES
  - BPSDC MARKETING SUITE
  - BPSDC ACCESS ROADS AS SHOWN ON BURD HAPPOLD DRAWING 0009 REV 01
  - PROPOSED VEHICLE ACCESS ROUTE FOR MAINTENANCE OF CONVEYOR AND ACCESS TO JETTY
  - PROPOSED CONVEYOR ROUTE BASED ON BURD HAPPOLD DRAWING 0009 REV 01 (CROSSOVER BOX TO RIVER WALL) AND PLAS RESERVATIONS ON IMPACTING NAVIGATION ACCESS TO CRINGLE DOCK (ALONG RIVER WALL AND TO JETTY)

Client: **Transport for London**

**URS**

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 www.halcrow.com

Project: **NORTHERN LINE EXTENSION TO BATTERSEA TWAO FOR TIL**

Drawing: **ILLUSTRATIVE SPOIL EXPORT CONVEYOR ROUTE**

Suitability: **S4 FORMAL ISSUE TO CLIENT**

Drawn by: DT Date: 24/03/2013  
 Checked by: TW Date: 24/03/2013  
 Approved by: HW Date: 24/03/2013

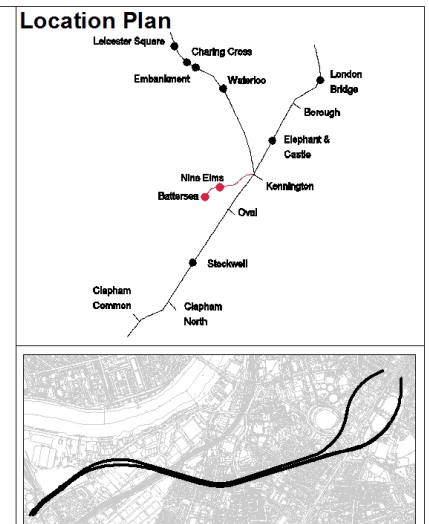
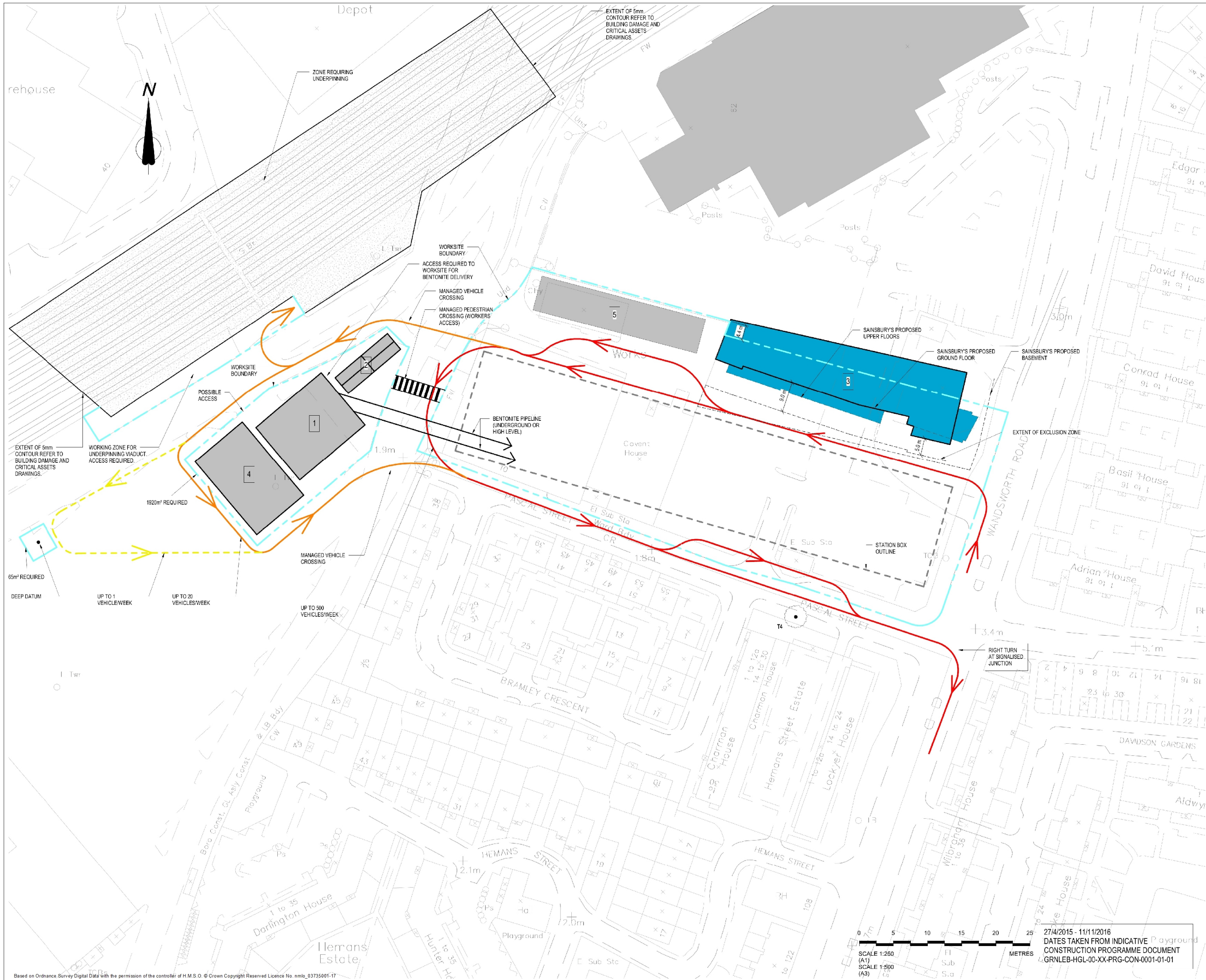
Drawing Scale: 1:1,000 @ A1

Drawing Ref: **GRNLEB-HGL-ST-XX-DR-OTH-21407** Revision: 01

Drawing No: **Figure 4-3**

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- Notes:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
  2. DO NOT SCALE FROM THIS DRAWING.
- KEY**
- 1 25m x 20m BENTONITE FARM
  - 2 4 No. 10m x 3m ACCOMMODATION MODULES ON 3 STOREYS (12 No. TOTAL)
  - 3 LINE OF SAINSBURY'S DEVELOPMENT
  - 4 28m x 18m BENTONITE FARM
  - 5 LAYDOWN SPACE
- PROPOSED MAIN VEHICLE ACCESS
- T4 EXISTING TREE TO REMAIN

Client: **Transport for London**

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 www.halcrow.com

**Halcrow**

Project: **NORTHERN LINE EXTENSION TO BATTERSEA TWAOF FOR TIL**

Drawing: **ILLUSTRATIVE NINE ELMS STATION WORKSITE REQUIREMENTS STRUCTURAL WORKS**

Suitability: **S4 FORMAL ISSUE TO CLIENT**

Drawn by: DT Date: 24/03/2013  
 Checked by: TW Date: 24/03/2013  
 Approved by: HW Date: 24/03/2013

Drawing Scale: As indicated @ A1

Drawing Ref: GRNLEB-BHD-ST-XX-DR-12671 Revision: 01

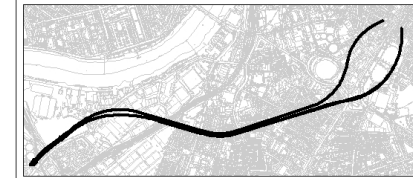
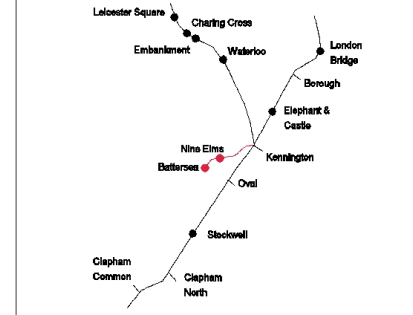
Drawing No: Figure 4-4

27/4/2015 - 11/11/2016  
 DATES TAKEN FROM INDICATIVE PROGRAMME DOCUMENT  
 GRNLEB-HGL-00-XX-PRG-CON-0001-01-01

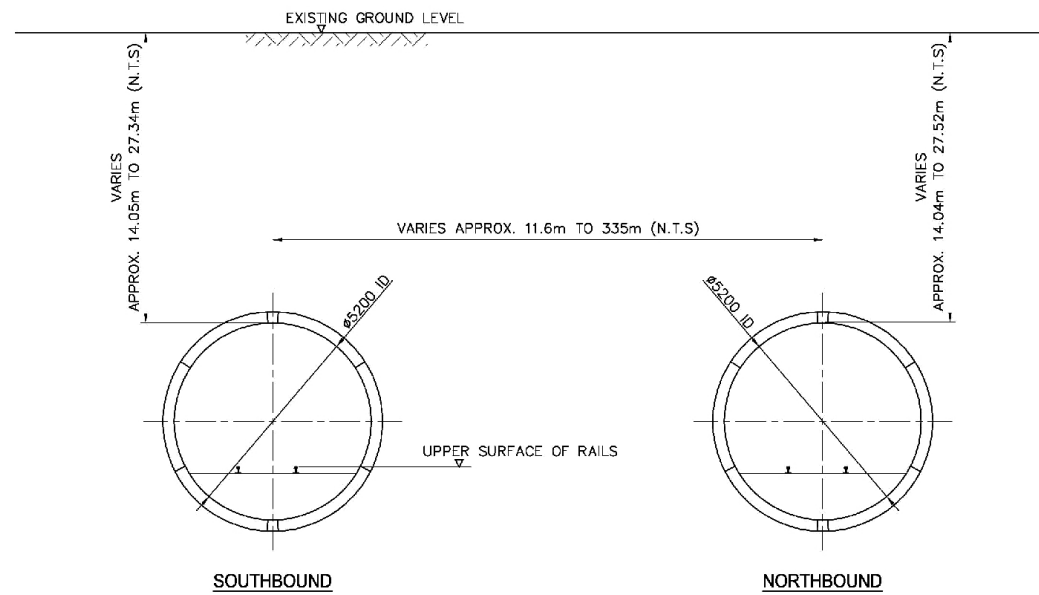
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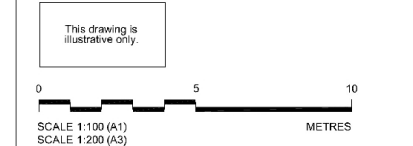
**Location Plan**



- Notes:**
- DO NOT SCALE FROM THIS DRAWING.
  - ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.
  - OVERRUN TUNNELS, PLATFORM TUNNELS AND CROSS PASSAGE SECTION CAN BE ADDED IF REQUIRED.
  - N.T.S. DENOTES NOT TO SCALE.



TYPICAL RUNNING TUNNEL SECTIONS



Client:  
**Transport for London**

Logos for **URS**, **studiodare** ARCHITECTS, and **Buro Happold** Consulting Engineers.

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Hammersmith, London W6 7EF  
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www.halcrow.com

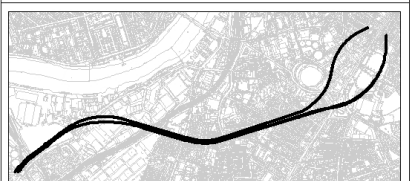
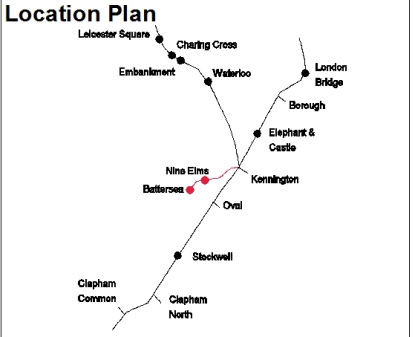
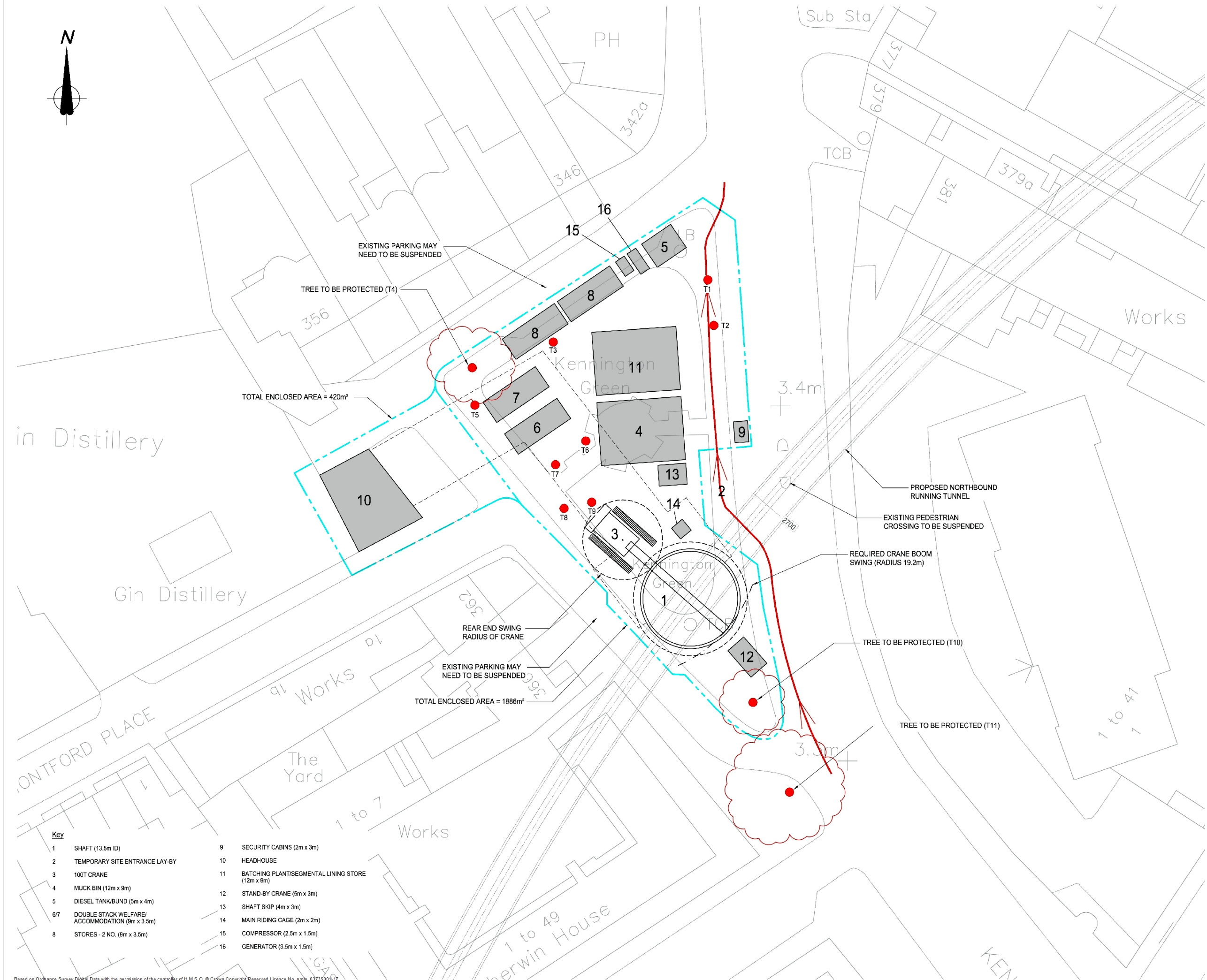
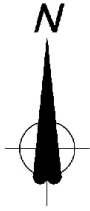
Project:  
**NORTHERN LINE EXTENSION  
TO BATTERSEA  
TWO FOR TIL**

Drawing:  
**TUNNEL TYPICAL  
CROSS SECTIONS**

Suitability:  
**S4 FORMAL ISSUE TO CLIENT**

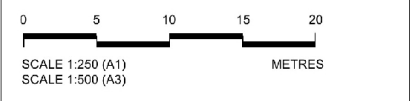
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Checked by:	TW	Date:	24/03/2013
Approved by:	HW	Date:	24/03/2013
Drawing Scale:	1:100 @ A1		
Drawing Ref:	GRNLEB-HGL-TU-XX-DR-TUN-50211		Revision: 01
Drawing No:	Figure 4-5		





- Notes:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
  2. SITE HAS A MEDIUM TO LARGE 360° TRACKED EXCAVATOR TO LOAD MUCK LORRIES.

- General Key:
- TREE
  - TREE CANOPY SPREAD
  - SITE ACCESS ROUTE
  - 2.4m HIGH HOARDING



Client:  
**Transport for London**



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FAX: 020 3479 8001  
www.halcrow.com

Project:  
**NORTHERN LINE EXTENSION  
TO BATTERSEA  
TWOA FOR T1L**

Drawing:  
**ILLUSTRATIVE KENNINGTON  
GREEN VENTILATION SHAFT  
CONSTRUCTION WORKSITE  
REQUIREMENTS**

Suitability:  
**S4 FORMAL ISSUE TO CLIENT**

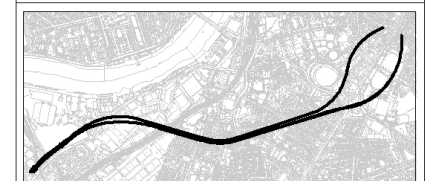
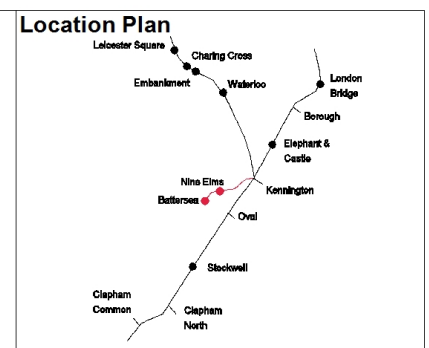
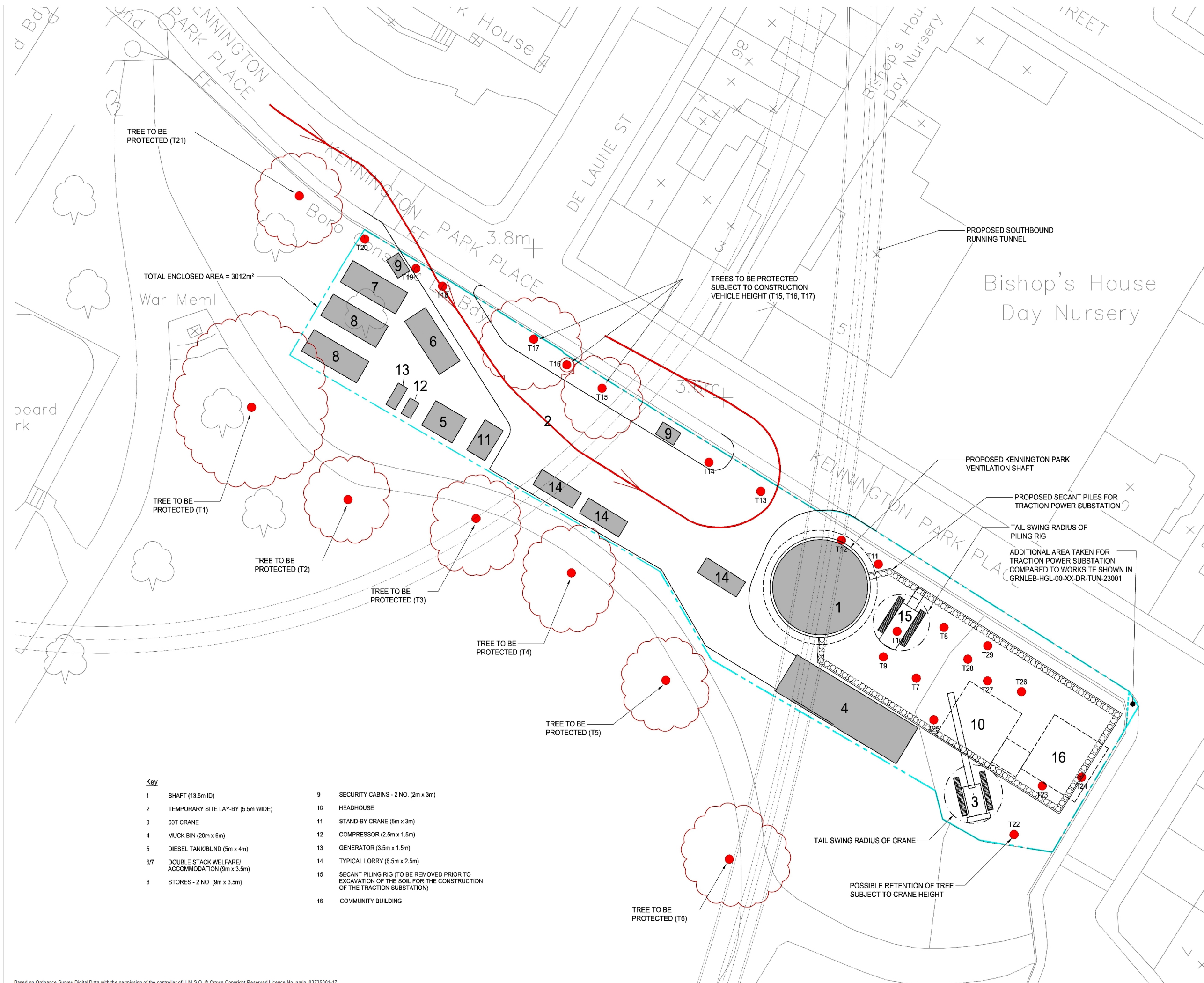
Drawn by: DT	Date: 24/03/2013
Checked by: TW	Date: 24/03/2013
Approved by: HW	Date: 24/03/2013
Drawing Scale: 1:100 @ A1	
Drawing Ref: GRNLEB-HGL-00-XX-DR-TUN-23000	Revision: 01

Key

1	SHAFT (13.5m ID)	9	SECURITY CABINS (2m x 3m)
2	TEMPORARY SITE ENTRANCE LAY-BY	10	HEADHOUSE
3	100T CRANE	11	BATCHING PLANT/SEGMENTAL LINING STORE (12m x 6m)
4	MUCK BIN (12m x 9m)	12	STAND-BY CRANE (5m x 3m)
5	DIESEL TANK/BUND (5m x 4m)	13	SHAFT SKIP (4m x 3m)
6/7	DOUBLE STACK WELFARE/ ACCOMMODATION (9m x 3.5m)	14	MAIN RIDING CAGE (2m x 2m)
8	STORES - 2 NO. (9m x 3.5m)	15	COMPRESSOR (2.5m x 1.5m)
		16	GENERATOR (3.5m x 1.5m)

Figure 4-6





**Notes:**  
 1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.  
 2. SITE HAS A MEDIUM TO LARGE 360° TRACKED EXCAVATOR TO LOAD MUCK LORRIES.

**General Key:**  
 ● TREE  
 ○ TREE CANOPY SPREAD  
 → SITE ACCESS ROUTE  
 - - - 2.4m HIGH HOARDING

0 5 10 15 20  
 SCALE 1:250 (A1)  
 SCALE 1:500 (A3)  
 METRES

Client:  
**Transport for London**

**URS**

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 TEL: 020 3479 8000  
 FAX: 020 3479 8001  
 www.halcrow.com

Project:  
**NORTHERN LINE EXTENSION TO BATTERSEA TWAO FOR TIL**

Drawing:  
**ILLUSTRATIVE KENNINGTON PARK VENTILATION SHAFT & TRACTION POWER SUBSTATION CONSTRUCTION WORKSITE REQUIREMENTS**

Suitability:  
**S4 FORMAL ISSUE TO CLIENT**

Drawn by: DT Date: 24/03/2013  
 Checked by: TW Date: 24/03/2013  
 Approved by: HW Date: 24/03/2013  
 Drawing Scale: 1:100 @ A1  
 Drawing Ref: GRNLEB-HGL-00-XX-DR-TUN-23002  
 Revision: 01

Key	
1	SHAFT (13.5m ID)
2	TEMPORARY SITE LAY-BY (5.5m WIDE)
3	60T CRANE
4	MUCK BIN (20m x 6m)
5	DIESEL TANK/BUND (5m x 4m)
6/7	DOUBLE STACK WELFARE/ACCOMMODATION (9m x 3.5m)
8	STORES - 2 NO. (9m x 3.5m)
9	SECURITY CABINS - 2 NO. (2m x 3m)
10	HEADHOUSE
11	STAND-BY CRANE (5m x 3m)
12	COMPRESSOR (2.5m x 1.5m)
13	GENERATOR (3.5m x 1.5m)
14	TYPICAL LORRY (6.5m x 2.5m)
15	SECANT PILING RIG (TO BE REMOVED PRIOR TO EXCAVATION OF THE SOIL FOR THE CONSTRUCTION OF THE TRACTION SUBSTATION)
16	COMMUNITY BUILDING

Figure 4-7