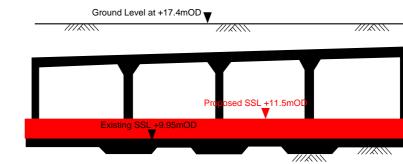


Exploratory hole reference	Hole type	Total no.	Scheduled depth	Objectives of the hole
RC101	Cable percussion + rotary	1	70m (Cable percussion with rotary follow on)	To characterize the stratigraphy of onsite soils for design and selection of construction methodology.      Obtain representative samples to carry out geotechnical testing; to derive the geotechnical parameters for CR2 shaft design.      Standpipe/piezometer installations to determine the hydraulic profile with depth in the Lambeth Group and Thanet Sand.      4. Self-boring pressuremeter tests
RC102	Cable percussion + rotary	1	70m (Cable percussion with rotary follow on)	To characterize the stratigraphy of onsite soils for design and selection of construction methodology.     Obtain representative samples to carry out geotechnical testing; ) to derive the geotechnical parameters for CR2 shaft design.      Standpipe/piezometer installations to determine the hydraulic profile with depth in the Lambeth Group and Thanet Sand.      Standpipe installation in the Chalk for groundwater monitoring and environmental sampling of the deep aquifer.
RC103	Cable percussion + rotary	1	70m (Cable percussion with rotary follow on)	To characterize the stratigraphy of onsite soils for design and selection of construction methodology.      Obtain representative samples to carry out geotechnical testing; to derive the geotechnical parameters for CR2 shaft design.      Standpipe/piezometer installations to determine the hydraulic profile with depth in the Lambeth Group and Thanet Sand.      4. Self-boring pressuremeter tests
BH101, BH102, BH104, BH106	Cable percussion	4	30m	To characterize the stratigraphy of onsite soils for basement design and the contamination conditions at the site.     Obtain representative samples to carry out geotechnical and chemical testing.     Standpipe/piezometer installations for perched water and gas monitoring and sampling.
BH107	Cable percussion	2	10m	To characterize the stratigraphy of the Made Ground and Superficial deposits including the contamination conditions at the site.     Obtain representative samples to carry out geotechnical and chemical testing,     Standpipe/piezometer installations for perched water and gas monitoring and sampling
BH103, BH105, BH108	Cable percussion + rotary	3	70m or 5m below deep aquifer level, whichever deepest	To characterize the stratigraphy of onsite soils for design and selection of construction methodology.     Obtain representative samples to carry out geotechnical and environmental testing.     Standpipe/piezometer installations in the Chalk for groundwater monitoring and environmental sampling; and shallow water and gas monitoring and sampling.     BH03 is close to NR Thameslink and services corridor. Utility avoidance best practice to confirm setting out on site.
OP101	Observation pit/ Trial pit	1	3m	Investigate depth to top of existing underground tank farm and proximity to the FCI basement. Dimension, photograph and sketch features.
OP102, OP103, OP105	Observation pit/ Trial pit	3	3m	Investigate large buried historical goods yard foundations, dimensions and spacing in relation to drawings. Core through the footing full depth to confirm its thickness, presence of steel reinforcement or grillages. Obtain samples for strength testing and examination. (The foundations size are indicated to be 4.5m or 2.25m squared in plan with a depth of 1.2.)
OP104 & OP110	Observation pit/ Trial pit	2	3m	Investigate large buried historical goods yard foundations. Core through the footing full depth to confirm its thickness, presence of steel reinforcement or grillages. OP104 to be extended to be wide enough to prove two existing pads to record spacing. OP110 to confirm one pad to correlate to spacing calculated from OP104.
OP106-OP107	Observation pit/ Trial pit	2	3m	Investigate historical buried foundations (former load bearing walls of railway goods yard).  Core through the footing full depth to confirm its thickness, presence of steel reinforcement or grillages. Obtain samples for strength testing and examination.
OP108	Observation pit/ Trial pit	1	3m	Investigate existing loading bay footing. Core through footing to prove depth in conjunction with pitting. Dimension, photograph and survey.
OP109	Observation pit/ Trial pit	1	3m	Investigate existing face of basement retaining wall. Core through footing to prove depth in conjunction with pitting. Dimension, photograph and survey.
CO101	Concrete coring	1	-	I. Initial probing to confirm water table.     Core at large diameter or local breakout through the base slab of the underground tank farm to confirm its thickness and confirm founding strata beneath through local pitting 3. Survey levels of top of slab and base of the structure.
ws	Window Sample boreholes	3	3	To characterize the stratigraphy of onsite soils (including depth), including the geotechnical parameters of the soil for basement design and the contamination conditions at the site.     Obtain representative samples to carry out geotechnical and chemical testing.     Standpipe/piezometer installations for groundwater and gas monitoring and sampling in Made Ground.
CPTs	Cone Penetration Tests	10	10m	To profile superficial deposits and prove surface of the London Clay.  Phase to follow borehole site investigation and make use of pitting locations to avoid shallow obstructions. Location to be enabled though pipe when backfilling pits, surrounded with compacted fill/sand.

### Existing Tank farm section



# Relocation of any exploratory holes shall be agreed with Arup & RSHP

# Legend:

- Cable Percussion Borehole
- Concrete Coring
- Observation Pit/ Trial Pit
- Rotary drillhole
- Window Sample
- ▲ CPT
- CR2 7 level shaft location
- Basement dig
- Site boundary
- Northen Line exclusion zone

- Francis Crick Institute south basement wall
  Approx. Tank Farm Extent
- Approx. Tank Farm Pad Footings
- Topo Survey 2024
- - CR Southbound centre
- CR2 fill
- CR2\_exclusion
- TP Underground Utilities

#### 0 - 5 - 1 0 - 1 - 2 5 - 1 0 - 1 0 - 1

For exploratory holes, refer to Specification: BL-ARUP-ZZ-XX-SP-CG-00001 [D03] For utility trial pits, refer to Specification: BL-ARUP-ZZ-BG-SP-CU-00001

		Metre	s		
0	12.5	25			50
04	11/12/2024	DO	SJ	НТ	DCP
Rev	Date	Ву	Chkd	Appd	Authd

# **ARUP**

8 Fitzroy Street London W1T 4BQ Tel +44 20 7636 1531 www.arup.com

Client

SMBL

#### Dania at Mana

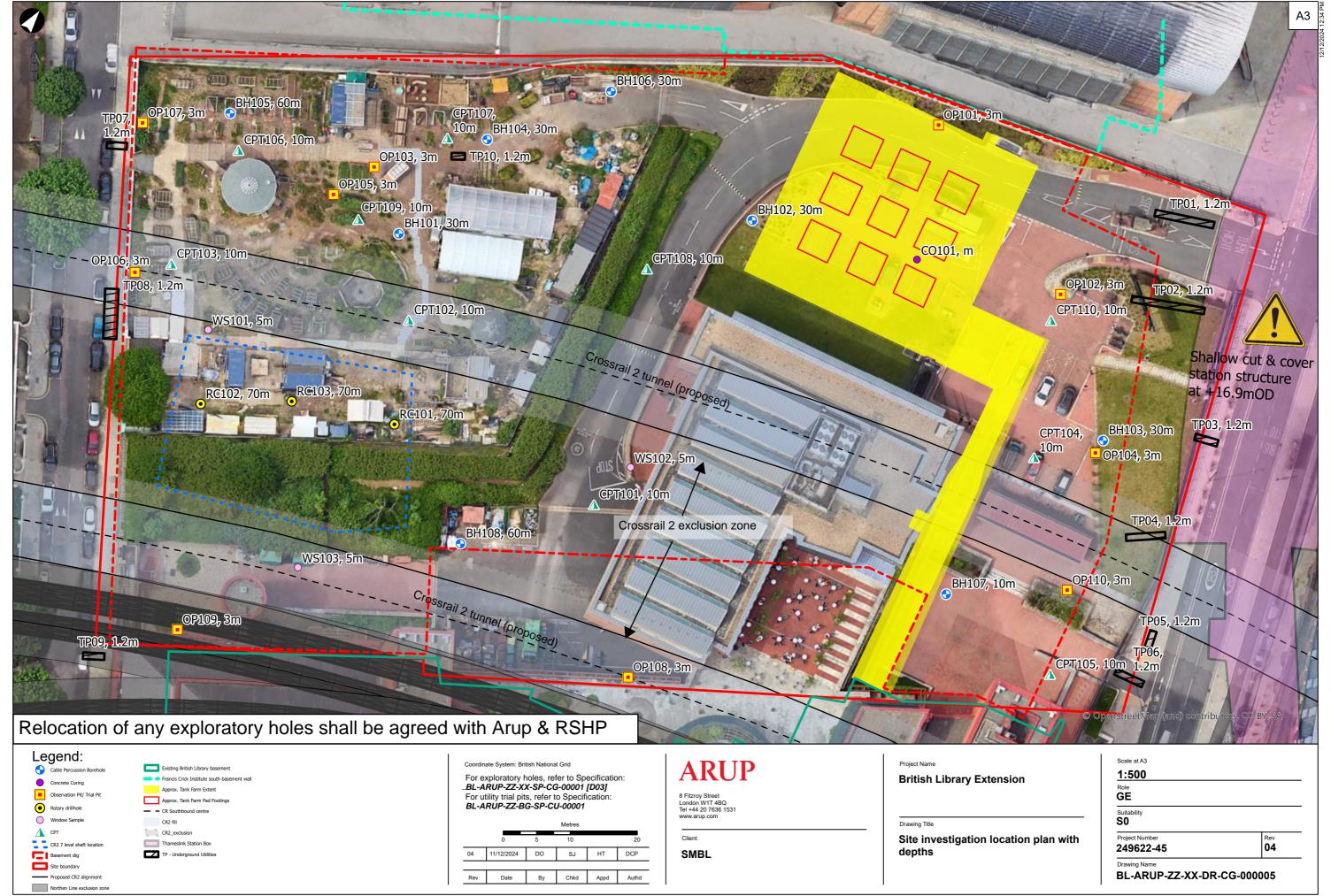
## **British Library Extension**

Drawing <sup>\*</sup>

Exploratory hole location plan with objectives

1:1,000 Role GE	
Suitability	
Project Number	Rev
249622-45	04

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