



# CENTRAL SECTION PROJECT

## C412 Main Works at Bond Street Station

# SITE INFORMATION Volume 3

Document Number: C412-XRL-V3-STE-C125\_WS088\_Z-50001

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#### **ABBREVIATIONS**

CRL	Crossrail Ltd
ETH	Eastern Ticket Hall
LUL	London Underground Limited
mATD	Metres above tunnel datum (100mATD = 0mAOD)
PCIP	Pre Construction Information Package
UXO	Unexploded Ordnance
wcc	Westminster City Council
WI	Works Information
WTH	Western Ticket Hall
HAZMAT	Hazardous Material

In this document terms identified in Contract Data are shown in *Italics* and where used, terms defined in the Conditions of Contract are capitalised.



#### 1 Overview

#### 1.1 Location of the works

The Site for the new Bond Street Crossrail Station is located in the City of Westminster and comprises two worksites; the Eastern Ticket Hall (ETH) and the Western Ticket Hall (WTH). Both worksites are surrounded by a mixture of residential properties, commercial buildings and offices. They are located in an area heavily frequented by pedestrians and vehicles visiting and servicing the vast array of commercial properties located within easy reach of the worksites. Furthermore, there is a large movement of both cyclists and taxis through the area. The specifics of both worksites are described in subsequent sections.



## 2 Eastern Ticket Hall

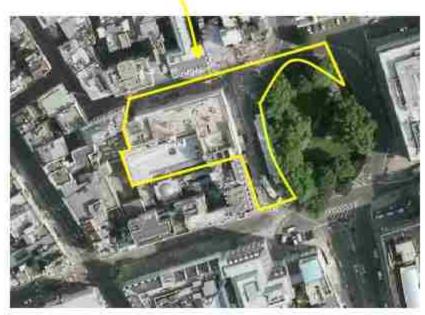
#### 2.1 Location of the works

The Site of the ETH is formed of the previous properties; 18 and 19 Hanover Square and 1a Tenterden Street, all of which have been demolished. The Site is bounded by Tenterden Street to the north, Hanover Square to the east, the rear of the New Bond Street Masterplan properties to the west and 20 Hanover Square to the south.

The station box piled walls and 2 No. temporary access shafts have been constructed by Others.







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The Site lies within the Mayfair Conservation Area. The south of the Site is adjoined to 20 Hanover Square, a grade II\* listed building. Adjoining 20 Hanover Square to the south is 21 Hanover Square, another grade II listed building dating from circa 1740 to 1750.

The Site is predominantly surrounded by office buildings in Hanover Square. To the west of the Site lies the partly demolished New Bond Street Masterplan buildings which are largely abandoned. The remainder of New Bond Street comprises retail and commercial premises and is heavily trafficked by pedestrians and vehicles. To the north of Tenterden Street, there are retail units which front Oxford Street. In Dering Street to the north-west, there are numerous bars and restaurants in addition to other commercial properties. There are believed to be no residential units in immediate proximity to the Site. A number of properties, in particular those in close proximity to the Site have approved Undertakings and Assurances which will remain applicable for the duration of the works.

#### 2.2 Site Conditions:

The Site previously had buildings sited within the worksite boundary. These buildings have been demolished by Others, down to basement level including the removal of all basement slabs and footings.

The following works will have been completed by Others at the access date(s):

- Piled walls for the station box
- Internal bearing piles
- Plunge columns
- Capping beam
- Ground floor slab gridline D F

2 No. early access shafts - the "Northwest Shaft" and the "Masterplan Shaft" (including temporary pile walls and intermediate reinforced concrete prop slabs) and a temporary crossover tunnel and Eastbound – Westbound running tunnel will have been completed and handed over to Others before the commencement of the Contractors works.

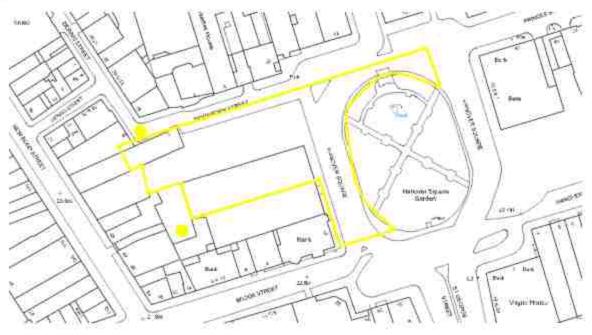
At the commencement of the works, hoarding and traffic management demarcations, previously used by Others, shall remain in position around the perimeter of the Site.

#### **Grout Shafts**

Two grout shafts (Others will remain Principal Contractor) are located in the near vicinity of the Eastern Ticket Hall Site boundary. These are located at the corner of Tenterden Street and Dering Street and in Dering Yard (see 2.2.1 for map detailing their location).

Plan showing ownership and nature of boundary & 2 Grout Shafts





## Topography

The pavements are generally flat along Hanover Square and slightly sloping on Tenterden Street. There is a longitudinal slope across the site of about 2 metres between Hanover Square and Dering Yard. A topographical survey drawing of the site showing the existing levels is detailed on C132-WSP-C-DDA-C125-53200 in Appendix V3-10.

#### Ground conditions including water table

A summary of the encountered geology and the design geological profile taken from the Bond Street Station Geotechnical Summary Report is given in Table 1 below.

At the Site, the superficial geology is the Lynch Hill Thames Terrace Gravels, however, there has been extensive basement work in the area with natural gravels cut through and redeposited. Full geotechnical information is detailed within the following report, contained within Appendix V3-15:

Geotechnical Baseline Report: CRL1-XRL-C2-RGN-C125-50014

STRATUM	LEVEL OF TOP OF STRATUM (mATD)	THICKNESS (m)
Made Ground	+119.95 to +124.25	0.65 to 4.35
Terrace Gravel	+117.75 to +122.70	0.20 to 6.15
London Clay	+116.45 to +117.55	26.20 to 29.30
Upper Mottled Clay	+88.25 to +90.35	4.85 to 11.00

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	Laminated Beds	+79.35 to +84.00	0.70 to 1.05	ĺ
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Table 1 - Summary geological profile at Bond Street Station Eastern Ticket Hall

#### 2.3 Utilities / Services / Agreements and Surveys:

## Decommissioning of Services

Decommissioning, relocation and replacement of services from within the footprint and vicinity of the site will have been completed by Others, prior to the commencement of the works. The as built information for the utilities works is located in Appendices V3-27 to V3-49.

Termination positions, certificates and as built drawings where available, shall be provided to the Contractor.

Works have been conducted on Thames Water assets (clean and foul water) by Others and the IFC drawings are attached in Appendices V3-23 to V3-27 for works undertaken on Hanover Square, Tenterden Street and Dering Street.

Details of any disconnections or terminations that are carried out by Others, during the works, will be provided to the Contractor.

#### Plan of services and equipment

A temporary High Voltage substation has been located by Others into New Bond Street and a transformer has been installed to provide the site supply. Details are provided in Part 17 Facilities and Services.

The Contractor should make its own enquires to the statutory utility companies to ascertain the position of their services. Access to these assets must be provided in accordance with the Works Information.

Details of the most recent radar surveys are available on request.

## Known Party Wall agreements & schedules of conditions

Immediately to the south of the worksite, the grade II\* listed number 20 Hanover Square is a substantial terraced town house dating from 1718-20. This building is currently occupied and utilised as office space. The building is made from darkened yellow stock brick with stucco porch and window surrounds. It consists of four storeys, an attic and a basement formed of one level.

The building shared a Party Wall with No. 19 Hanover Square prior to its demolition. Structural supports for the Party Wall have been installed by Others in accordance with the Heritage Deed Particulars for Approval – 20 Hanover Square, and subject to a Party Wall Agreement. Further Party Wall Agreements have been put in place for the piling and capping beam construction, excavation for the Masterplan Shaft, the SCL and bored tunnel works and adaption of the Structural Support for works already completed. The Contractor will need to prepare further Party Wall Agreements as necessary to construct his works adjacent to this Party Wall.

Schedule of Conditions of other adjacent properties are available. The Crossrail Act waives the need for Party Wall Agreements for these other properties.

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Figure 2.3.3a - 20 Hanover Square



Adjoining the Site to the west is 67 & 68 New Bond Street & 70-71 New Bond Street. The building foundations for these properties are unknown. The basement outline is included in Appendix V3-7.



Figure 2.3.3b - Rear of 67-68 New Bond Street





Figure 2.3.3c - Rear of 69 New Bond Street

## Details of known prescriptive rights of support or way

The gardens at the centre of Hanover Square are protected under the London Squares Preservation Act 1931. As part of the Crossrail Act, access to these gardens for the public shall be maintained. The trees located within the gardens shall not be adversely affected as a result of the *Contractor* completing the *works*.

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### Results of available site surveys, completed by Others

The completed surveys and the location of the results, which are relevant to the works, are detailed in Appendix V3-51. The unique identifying number is taken from the Crossrail Survey Schedule.

Copies of individual surveys are available on request.

## Additional investigation and survey requirements to be completed by Others

The Employer has established a Crossrail Survey Schedule which identifies surveys which are still to be completed by Others, for the Employer. These include Structural Condition, Structural, Non-Listed Built Heritage and Noise surveys for properties that have been assessed to have the potential to be affected by completion of the works. The Contractor will be provided with the results of the surveys as they become available.

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#### Western Ticket Hall 3

#### 3.1 Location of the works

The Site consists of a single plot bounded by Weighhouse Street to the north, Davies Street to the east, St. Anselm's Place to the south and Gilbert Street to the west.

Figure 3.1 - Site location plan and aerial view

The Site lies in a non-conservation area which abuts the Mayfair Conservation Area on all sides except to the north on Weighhouse Street where the West One shopping centre is located.

The surrounding area of the Site contains a mixture of both commercial and residential properties. To the west, Gilbert Street is residential in character, with mansion blocks of six or so storeys predominating. To the south, St Anselm's Place is mostly residential, generally in the form of mews style houses. Both Davies Street and Weighhouse Street consist of mixed use properties. At the western end of Weighhouse Street there is a residential mansion block and the eastern half is occupied by a development over the West One shopping centre. This development includes a ground level loading bay for the shopping

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centre. Retail uses are predominant on South Molton Lane, South Molton Street and in the West One shopping centre towards Oxford Street.

The Site is located above the running tunnel for the LUL Jubilee Line.

A number of properties, in particular those in close proximity to the Site have approved Undertakings and Assurances for the duration of the works.

Note: An additional grout shaft is located between the Eastern and Western Ticket Halls and is situated in Haunch of Venison Yard.

#### 3.2 Site Conditions:

The Site had a single building sited within the worksite boundary. This building was demolished by Others, down to basement level including the removal of all basement slabs and footings.

The basement at the worksite was propped / backfilled by Others with Class 6F2 material and to a level of 600mm +/- 50mm below existing road / ground level. Given the topography at the worksite, the finish grade will be sloping.

The following works will have been completed by Others at the access date(s):

- Diaphragm walls
- Internal piles
- Plunge columns
- Capping beam
- · Ground and Intermediate floor slabs

At the commencement of the works, hoarding and traffic management demarcations previously used by Others shall remain in position around the perimeter of the preceding worksite.

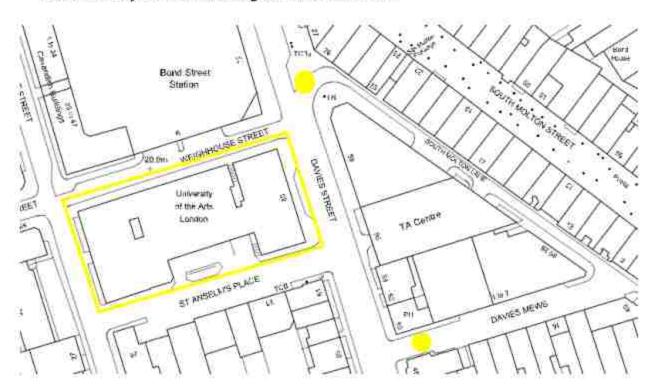
#### **Grout Shafts**

Two grout shafts (Others will remain Principal Contractor) are located in the near vicinity of the Western Ticket Hall Site boundary. These are located at the corner of South Molton Street and Davies Street and in Davies Mews (see 3.2.1 for map detailing their location).



## Plan showing ownership and nature of boundary

Figure V3-9 - Plan showing ownership at WTH worksite and buildings that have been demolished by Others. The two grout shafts detailed in



#### Topography

St Anselm's Place is approximately 2m lower than Weighhouse Street. St Anselm's Place slopes down from both Gilbert and Davies Street to a low point in the centre of the road. Full details are shown in the topographical survey, C132-WSP-C-DDA-C125-53100, in Appendix V3-9.

#### Ground conditions including water table

A summary of the encountered geology and the design geological profile taken from the Bond Street Station Geotechnical Summary Report is given in Table 2 below.

At the Site, the alluvium filled former valley of the Tyburn River has eroded through the terrace gravels into the London Clay. This erosion has formed a depression that could flood. Full geotechnical information is detailed in the following reports included in Appendix V3-15:

 C132 – Bond Street Station (Western Ticket Hall) Geotechnical Design Report 1: Geotechnical Design Basis Report Document Number: C132-WSP-C2-RGN-C125-00001.



STRATUM	LEVEL OF TOP OF STRATUM (mATD)	THICKNESS (m)
Made Ground	+118.30 to +122.10	3.00 to 5.30
Terrace Gravel	+115.05 to +117.90	0.0 to 3.50
London Clay	+112.90 to +118.10	18.90 to 26.25

Table 3 – Summary geological profile at Bond Street Station Western Ticket Hall

### 3.3 Utilities / Services / Agreements and Surveys:

### Decommissioning of Services

Decommissioning and relocation of services from within the footprint of the demolished building will have been completed by Others, prior to the commencement of the works. Termination positions and certificates, where available, shall be provided to the Contractor.

Details of any disconnections or terminations that are carried out by Others, during the works, will be provided to the Contractor.

## Plan of services and equipment

Utility diversions in St Anselm's Place and Weighhouse Street shall be completed prior to the Contractor commencing the works.

The Contractor should make its own enquires to the statutory utility companies to ascertain the position of their services. Access to these assets must be provided in accordance with the Works Information.

Details of available radar surveys are included in Appendix V3-1 - V3-2.

#### Known Party Wall agreements & schedules of conditions

No Party Wall agreements exist at the Site as it is surrounded by roads and the basements do not extend far beyond the building line.

Details of known prescriptive rights of support or way Not known.

## Results of available site survey completed by Others

The completed surveys and the location of the results, which are relevant to the works, are detailed in Appendix V3-50. The unique identifying number is taken from the Crossrail Survey Schedule.

Copies of individual surveys are available on request.

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Additional investigation and survey requirements to be completed by Others

The Employer has established a Crossrail Survey Schedule which identifies surveys which are still to be completed by Others for the Employer. These include Structural Condition, Structural, Non-Listed Built Heritage and Noise surveys for properties that have been assessed to have the potential to be affected by completion of the works. The Contractor will be provided with the results of the surveys as they become available.



#### 4 Potential Contaminants and Hazards

#### 4.1 Existing Asbestos Records

Full HAZMAT surveys, including type 3 asbestos surveys have been undertaken in the existing buildings at both the ETH and the WTH Sites. Hazardous materials and asbestos are contained within the buildings.

Others (contract C207) will be removing the hazardous materials as part of their scope prior to the subsequent demolition of the buildings to basement level, with the propping/backfilling of basements outside of the station box footprint.

Consequently at this stage it is expected that any hazardous/contaminated materials will have been removed prior to the *Contractor* commencing the *works*. Any further information gained during the demolition phase (particularly if it relates to the basement areas that remain in situ) will form part of the H&S file/site information, produced by Others. This will be made available to the *Contractor* at completion of the demolition phase works or when it becomes known.

Copies of the HAZMAT reports produced prior to demolition are available on request.

#### 4.2 Chemicals

No chemical data is currently available within the footprint of either worksite.

### 4.3 Unexploded Ordnance (UXO)

The UXO assessment results are available within the Construction Phase Unexploded Ordnance Threat Assessment document included in Appendix V3-6. Within this document the *Contractor* should refer to those sections which are relevant to the works i.e. parts 1, 2 & 3, all figures, and section PPML2 of that document.

#### 4.4 Flooding

Current records do not indicate flooding has occurred in the vicinity of either the ETH or WTH worksites. Notwithstanding the above, the WTH worksite is located in a depression that could flood. The flood height could exceed 2m in depth at St Anselm's Place under storm conditions and failure of the drainage.

#### 4.5 Other

For all other potential hazards, refer to the risk register within the Pre Construction information Pack (PCIP) included in Volume 0 Commercial, Appendix K.

#### 4.6 Health and Safety files

Health & Safety files for the respective worksites shall be issued to the Contractor once obtained by the Employer after demolition of the buildings.



## 5 Environmental Requirements

#### 5.1 Noise

Noise baseline reports that have been completed at the worksites are included in Appendix V3-12.

#### 5.2 Air Quality

Bloomsbury Local Authority monitoring sites shall be used for the establishment of the dust baseline.

Crossrail high dust risk sites	Monitoring sites	Local authority / AURN	Data Source
Hanover Square (C4) Davies Street (C4)	Bloomsbury	AURN	London Air Quality Network/ UK Air Quality Archive

#### 5.3 Built Heritage

In the vicinity of the Bond Street Station Site, the Contractor shall be aware that the following structures are classified as Listed Buildings:

- The Grade II Listed statue of William Pitt the Younger. Located at the southern end
  of the gardens the statue shall not be touched or removed;
- Grade II\* Listed 20 Hanover Square; and
- The Grade II Listed Cabman's shelter, which shall not be touched or removed.

#### 5.4 Potentially Contaminated Land

The Contractor shall refer to Appendix Vol 3 Env 1 for information on sites that have been classified by the Employer (as defined in Works Information Volume 2B Part 21 Environmental Management, section 21.13.1) as low risk, medium risk and high risk. Bond Street Station Eastern Ticket Hall and Western Ticket Hall have been classified as medium risk sites. Extracts from Crossrail Technical Report – Assessment of Contaminated Land, February 2005 are included in Appendix V3-17.

#### Contaminated Land – Existing Information

A risk assessment has been completed and it is contained within the Crossrail Route Wide Generic Activities Land Contamination Report included in Appendix V3-18.

#### 5.5 Ecology

The Employer has undertaken the following ecological surveys and the reports:

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- Bat Survey Report2008, section 5.4 covers Route Window C4 Bond Street, included in Appendix V3-12;
- Detailed Internal/External inspections for Bats on 65 Davies Street, 18 and 19 Hanover Square and 1 Tenterden Street.



#### 5.6 Environmentally Sensitive Worksites

The following areas are Environmentally Sensitive Worksites (under the Crossrail Environmental Minimum Requirements, Annex 3: Environmental Memorandum):

· Hanover Square Gardens (Landscape and Restoration),

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#### APPENDICES LIST

The appendices are contained on DVD No. 1 (reference C412 Main Works) appended to Volume 1.

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