**DOC NO.** FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract



**CLIENT: LONDON UNDERGROUND LIMITED** 

**CONTRACT REF:** TLL 7917

**NORTHERN LINE EXTENSION** 

MAIN WORKS CONTRACT

### ARCHAEOLOGY AND HERITAGE MANAGEMENT PLAN



#### **Issue and Revision Control**

Distribution and revision control is managed through the Electronic Document Management System - Asite, with the latest revision displayed.

This document is uncontrolled when printed.

Rev. 2.0

Archaeology and Heritage Management Plan

	Revision History		
Rev No	Date	Summary of Changes	Section Number
1.	18.12.2014	Draft for community liaison.	All
2.	23.01.2015	Updated from review comments	All

Rev. 2.0

# Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

### **CONTENTS**

1.0	INTRODUCTION	4
2.0	SCOPE OF THE NLE WORKS	4
2.1	DESCRIPTION OF THE SITES	4
3.0	HERITAGE PROVISIONS	5
3.1	ADDITIONAL PROVISIONS	6
4.0	HERITAGE APPROVALS	6
5.0	TRAINING	7
6.0	MONITORING AND REVIEW	8
7.0	EMERGENCY WORKS	8
8.0	PROGRAMME	8
9.0	SITE SPECIFIC MEASURES	9

Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

#### 1.0 Introduction

The Archaeology and Heritage Management Plan addresses potential effects on archaeology and heritage assets from all enabling and construction activity (permanent and temporary); including but not limited to demolition, site preparation, access routes, site compounds, ground improvement (e.g. grouting) and excavation works, foundations, utilities and river works such as dredging and settlement. It ensures all contractual and legal obligations are satisfied in addition to ensuring works are implemented in a considerate way to avoid unnecessary archeological and heritage impacts.

Ferrovial Agroman Laing O'Rourke Joint Venture (FLO) manages the impact of construction works on archaeological and heritage assets, which includes:

- designated assets: listed buildings, registered parks and gardens and conservation areas; and
- non-designated assets: archaeological and palaeoenvironmental remains; locally designated assets; and other locally important buildings and structures.

All works are managed in accordance with accepted industry best practice and guidance, taking account of the relevant sections of the National Planning Policy Framework (NPPF) (2012) and the Transport and Works Act Order (TWAO).

To ensure that this document remains relevant, adequate and effective as the works progress the Archaeology and Heritage Management Plan will be reviewed and updated:

- Following any change in scope of work that has an impact on environmental requirements;
- As instructed by the Project Manager; and
- At least every 6 months.

### 2.0 Scope of the NLE works

The scope of this Archaeology and Heritage Management Plan includes four work sites and areas affected by the NLE works. This plan is designed to cover the construction of the NLE which will create a new underground line as an extension to the existing Charing Cross branch of the Northern line between Kennington and a terminus station to the south of Battersea Power Station. The extension will consist of new twin bore running tunnels of 5.2m internal diameter and covering a distance of approximately 3.3km with two permanent ventilation shafts at Kennington Park and Kennington Green and new stations at Battersea and Nine Elms.

#### 2.1 Description of the sites

The surface worksites associated with the construction of the NLE are located at Battersea, Nine Elms, Kennington Park and Kennington Green.

Battersea Station worksite is located within the south western section of Battersea Power Station (BPS) development, within London Borough of Wandsworth. Where the worksite

Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

abuts Battersea Park Road, Battersea Park Road is at a higher level than the site. The site is bounded to the west by Network Rail, to the north by Battersea Power Station and to the east by the Battersea Power Station Development Company;

Nine Elms Station worksite including part of the New Covent Garden Market Authority (CGMA), is located on the land to the west of A3036 Wandsworth Road and north of its junction with Pascal Street, within London Borough of Lambeth. The worksite includes the north footway of Pascal Street. The worksite is bounded to the north by a Sainsbury's worksite and to the west by land owned by Covent Garden Market within London Borough of Wandsworth. The demolition of the Banham building on the west end of the worksite, the CGMA office, boiler house, including the chimney and underground fuel tanks and the relocation of two substations are necessary to release the full area of the worksite.

Kennington Green worksite is located at Kennington Green within the London Borough of Lambeth and within the Kennington Conservation Area. The triangular site is bounded on all three sides by Kennington Road, the eastern boundary being the main route of the road. The worksite includes footways and parking bays. It is necessary to carry out some demolition to release the full worksite. Kennington Green is protected by the London Squares Act (1931). There is a local satellite worksite (hereafter referred to as Montford Place) to the west of Kennington Green adjacent to the Beefeater Gin Distillery and this is accessed via a narrow road to the west of Kennington Green. The area although not containing any permanent works for NLE is very close to the Kennington Green shaft. FLO has taken early occupation of the area and developed it for 'satellite' temporary offices and storage.

**Kennington Park worksite** is located in the north east corner of Kennington Park, south of Kennington Park Place west of its junction with St Agnes Place, within London Borough of Lambeth and within the St Marks Conservation Area. It is necessary to demolish Kennington Park Lodge to release the full worksite.

Two shafts of approx. 25m deep will be sunk at Kennington Green and Kennington Park respectively. These shafts will be used to remove the Tunnel Boring Machine's (TBM), service the Sprayed Concrete Lining (SCL) running tunnels up to the step plate junction, build the step plate junction and build the four cross passages at Kennington Station. The current proposal to build the step plate junction includes for two SCL gallery tunnels but this method is currently being reviewed.

#### 3.0 Heritage Provisions

General heritage measures include the following measures and procedures, as appropriate:

 Locations and descriptions of all known cultural heritage assets within and adjacent to construction works is communicated to project teams. Including restrictions to construction methods to protect cultural heritage assets, where these have been identified in the Environmental Statement or subsequently identified during the design process;

Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

- Provision of briefings and/or Toolbox Talks where necessary to highlight site specific heritage constraints and the procedures and measures to be followed;
- Protective measures including barriers and exclusion zones to protect heritage assets within construction areas;
- Condition surveys prior to the commencement of works, where there is a potential impact from the effects of construction, including settlement and vibration;
- Monitoring and recording of heritage assets identified as being at risk from the effects of settlement and vibration;
- Assessment of heritage assets within or adjacent to work sites to inform site specific measures including management of plant operations and working methods;
- Emergency procedures should artefacts of archaeological interest or expected interest be unexpectedly discovered during the course of construction (see section 7).

In addition to general measure site specific measures are provided for each work site. The site specific measures are provided in section 9 and set out the key constraints, heritage requirements and protective measures.

In order to comply with the requirements set out in Condition 10 of the TWAO development works will not commence within or immediately adjacent to an area of known or suspected archaeological importance until a written schemes of investigation (WSI) has been submitted to and approved by the Local Planning Authority.

The requirement and scope of a WSI will be identified through consultation with the Greater London Archaeological Advisory Service (GLAAS). The WSI will be written by the Heritage Specialist or delegated person to provide a specification of the archaeological and built heritage works required on the site of sufficient detail to be quantifiable, implemented and monitored.

#### 3.1 Additional provisions

FLO will secure all sites from unauthorised access – which will reduce the likelihood of theft from or damage to heritage. The use of metal detectors will be prohibited within areas of identified/defined archaeological interest unless deployed by archaeological specialists or other appointed persons in the execution of their activities.

Should human remains be located during construction either during archaeological works or as part of construction activity FLO will comply with all relevant legislative requirements within the Burials Act 1857 and the Human Tissues Act 2004.

Should artefacts be located during the course of construction that are deemed by their material content or context to be treasure, as defined by the Treasure Act 1996, then all necessary measures to comply with the requirements of the Act and any project specific requirements will be implemented.

#### 4.0 Heritage Approvals

The construction of the NLE will be undertaken within the schedule of works outlined in the London Underground (Northern Line Extension) Order 2014. The order was awarded under

Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

sections 1, 3 and 5 of the Transport and Works Act 1992 and is hereafter referred to as the TWAO. The TWAO provides listed building consent for works undertaken at Battersea and Kennington Station. Conservation area consent is provided for works in the Kennington Conservation Area and St Marks Conservation Area including works in the Grade II Registered Kennington Park. Specific conditions associated with these permissions are outlined in the Site Specific Measures (section 9). The TWAO also provides permission (through a Planning Direction from the Secretary of State) for the works with a potential to impact heritage subject to the following general conditions:

Archaeology, Condition 10:

No stage of the development within or immediately adjacent to an area identified in the Environmental Statement as being of known or suspected archaeological importance is to commence until a written scheme of investigation for a programme of archaeological work for that stage has been submitted to, and approved by, the local planning authority. Any works agreed must be carried out in accordance with the approved programme.

#### Built Heritage, Condition 11:

Monitoring equipment to be affixed to Listed Buildings shall not be installed until details of the equipment, the monitoring methodology and programme have been submitted and approved by the Local Planning Authority. Thereafter, the details agreed shall be carried out in accordance with the approved programme.

Where it is identified that additional heritage consents are required – for example additional intrusive works/ settlement mitigation for Listed structures (that do not constitute the placement of I&M or are covered by existing Listed Building Consent) or demolition works within a Conservation Area (that are not covered by the existing Conservation Area Consents), the Heritage Advisor will work with the Consents Manager to seek the appropriate consent. Such consents/approvals could be under the:

- The Planning (Listed Buildings) (Certificates of Lawfulness of Proposed Works)
   Regulations 2014
- The Planning (Listed Buildings and Conservation Areas) Act 1990
- The Town and Country Planning Act 1990

The heritage specialist will work with the Consents Manager as directed to identify where additional heritage consents are required; this will include as necessary consultation with the local planning authority, and English Heritage. The application for additional consents will be coordinated by the Consents Manager with technical support and documentation provided by the Heritage Specialist and TfL's heritage advisor where appropriate.

#### 5.0 Training

To ensure heritage requirements and site specific measures are carried out effectively the Heritage Specialist will provide the the appropriate members of the team with briefing / training where appropriate.

The Heritage Specialist will provide input into toolbox talks for site inductions where appropriate.

DOC NO.
FLO-N001-2360000-HSE-PLN-00013

Rev. 2.0

## Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

#### 6.0 Monitoring and Review

The excavation works involved in constructing the stations, shaft sites and tunnels may have the potential to cause ground settlement. All buildings that could be potentially impacted by settlement will be identified through mapping of the 10mm and 1mm settlement contour levels. Designated and non-designated buildings of heritage interest will also be assessed to identify the potential impact from settlement. Buildings within or adjacent to the construction sites will also be assessed for potential impacts from vibration. Where there is potential settlement impacts identified, vibration monitoring will be undertaken prior to, during and following construction works.

To comply with Condition 11 of the TWAO the Heritage Specialist will assist in the preparation of applications to the Local Authority for affixing Instrumentation and Monitoring (I&M) equipment to designated and non-designated buildings of heritage interest that have been identified as having potential to be impacted by settlement and vibration.

The heritage specialist is responsible for maintaining and reviewing management of monitoring prior to, during and following construction works. To ensure effective review regular meetings with the heritage specialist, construction manager, project manager and environmental manager will be held to reports on progress and highlight any heritage issues.

### 7.0 Emergency Works

In the event of accidental damage to heritage assets a temporary exclusion zone is to be established. The Construction Manager, Environmental Manager and Heritage Specialist will be notified and a site meeting arranged to assess the damage to the asset. English Heritage and/or the Local Authority will be notified as appropriate and a method for the emergency repair will be established. Where any damage to buildings does not require emergency repair it is made good as part of the construction process. Repairs to listed buildings are carried out in consultation with English Heritage and the Local Authority.

In the event of the unexpected discovery of buried heritage assets, the site will be made secure and safe to enter prior to all groundworks in the vicinity of the asset stopping. A temporary exclusion zone will be established and the heritage specialist or appropriate delegate will identify and assess the heritage significance of the asset. English Heritage and the Local Authority will be notified as appropriate and a suitable mitigation will be agreed prior to further work on site. Works will not proceed in this area without an appropriate measures agreed to by the English Heritage and the Local Authority as appropriate.

#### 8.0 Programme

The below table provides an outline programme of works relevant to archaeology/heritage;

Location	Activity
Battersea Station	Shallow excavations to remove potential below ground obstructions
Station	Commencement of piling

DOC NO.	Archaeology and Heritage
FLO-N001-2360000-HSE-PLN-00013	Management Plan
Rev. 2.0	Northern Line Extension Main Works Contract

	Commencement of Excavation
Nine Elms	Shallow excavations to remove potential below ground obstructions
	Commencement of piling
	Commencement of demolition works (Banhams House Building)
	Commencement of Excavation
Kennington	Shallow excavations to remove potential below ground obstructions
Green	Commencement of piling
	Commencement of Excavation
Kennington Park	Commencement of Utility trenching across Kennington Park (away from current utility corridor)
	Shallow excavations to remove potential below ground obstructions
	Commencement of piling
	Commencement of Excavation
Kennington Station	Commencement of Works at (Listed) Kennington Station

### 9.0 Site Specific Measures

Battersea Station		
Heritage Overview	The Battersea Station site contains a Thames Jetty and length of river wall that are included in the listing of the Grade II* Battersea Power Station.	
	The conveyor (which runs alongside a listed Pumping House) and jetty lie within an Archaeological Priority Area covering the Thames riverside. Within this area there is a potential for alluvial deposits containing palaeoenvironmental evidence, and remains of riverside structures of the prehistoric to postmedieval periods.	
	There is also potential for buried archaeological remains at the worksite and southern part of the conveyor route. The remains may comprise bases of features cut into the underlying gravel and, remains of the 19th-century reservoir and 20th-century railway depot within the made ground.	
	An Archaeological Written Scheme of Investigation (WSI) will be produced to mitigate the effect of construction works.	
Key constraints		
Grade II* listed Battersea	Listed Building Consent has been obtained alongside the NLE	

## Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

Power Station, jetty and		
intake and outlet chambers		
as subsidiary structures		

Rev. 2.0

TWAO for works that may potentially affect structures associated with the Grade II\* Battersea Power Station.

This is within WI2204, and the obligations contained within will be adhered to.

A number of conditions are attached to this consent – namely;

- 1. The works hereby permitted shall be begun not later than five years from the date of this consent.
- 2. Notwithstanding what is shown on the drawings' schedule (part of the application for listed buildings consent) the following further details shall be submitted to the Local Planning Authority for approval in writing and the development shall not be carried out otherwise than in accordance with the details as may be approved:
  - (i) the extent of retained and relocated crane and hopper tracks, including the positions of the cranes' deck level and any means of enclosing them for safety or security reasons; and
  - (ii) all means of enclosure (walls, railings, gates and fences) edge and soffit finishes; surface materials and changes in surface levels; and details of the exact type, design, location and height of lighting units.
- The works hereby authorised shall not begin until a detailed Method Statement, setting out the specification for the removal, refurbishment and re-erection of the cranes and hoppers, has been submitted and approved in writing by the Local Planning Authority.
- 4. Written notification of the intended start of works on site shall be sent to English Heritage, London Office (1 Waterhouse Square, 138-142 Holborn, London EC1 2ST) with a copy sent to the Local Planning Authority, at least seven days before the works hereby approved are commenced.

It should be noted that the cranes referred to within the consent application and conditions have been removed by Others.

#### Archaeology

To ensure the that works are undertaken with due regard to any archaeological remains Condition 10 of the TWAO planning decision states:

No stage of the development within or immediately adjacent to an area identified in the Environmental Statement as being of known or suspected archaeological importance is to commence until a written scheme of investigation for a **DOC NO.**FLO-N001-2360000-HSE-PLN-00013
Rev. 2.0

# Archaeology and Heritage Management Plan

	programme of archaeological work for that stage has been submitted to, and approved by, the local planning authority. Any works agreed must be carried out in accordance with the approved programme.  The conveyor and the jetty lie within an Archaeological Priority Area covering the Thames Riverside. This area is locally designated because of the potential for palaeoenvironmental and archaeological remains dating from the prehistoric to post medieval period.  The following archaeological constraints have been identified:  Palaeoenvironmental remains (a resource assumed to extend beyond the site);  Foreshore archaeology; including prehistoric or later structures; and  Unknown archaeology such as deep cut features which might have survived the 19th-century waterworks development.
Construction activity	Heritage Measures
Obstructions removal	No archaeological measures are required where works are undertaken within the levels of made ground identified by ground investigations.  The heritage specialist will consult with the GLAAS and / or the local authority to confirm no archaeological measures are required when the scope of works are finalised.  Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Conveyor construction and site preparation	No archaeological measures are required where works are undertaken within the levels of made ground identified by ground investigations.  The heritage specialist will consult with the GLAAS and / or the local authority to confirm no archaeological measures are required when the scope of works are finalised.  Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Retaining wall and cut and	A programme of archaeological investigation (to be defined

DOC NO. FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0	Archaeology and Heritage Management Plan
Rev. 2.0	Northern Line Extension Main Works Contract

cover excavation	within the WSI) will be required during the excavation to target potential archaeological and palaeoenvironmental remains.  The GLAAS will provide a scope for this archaeological investigation. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Dredging	Where dredging is undertaken within areas of the Thames River and foreshore that have been historically dredged, and do not exceed levels of historic dredging, no archaeological measures are required.  The heritage specialist will consult with the GLAAS and / or the local authority to confirm no archaeological measures are required when the scope of works are finalised.  Where dredging exceeds historic levels a scheme of archaeological monitoring or investigation (to be defined within the WSI) will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Building works	Mitigation for physical impacts from above-ground works on built heritage is not required.
Protective Measures	
Documenting and monitoring	Appropriate levels of monitoring and recording will be undertaken. The details are dependent on a site review and consultation with English Heritage and Local Planning Authority. All details of monitoring and recording will be provided within a WSI.  All site specific measures will be appropriately provided in briefings and/or toolbox talks as appropriate.
Site hoarding	To ensure site security to prevent unauthorised access to heritage assets and damage to or theft from them the contractor is to commence by erecting hoarding to enclose the site.

DOC NO.

FLO-N001-2360000-HSE-PLN-00013

Rev. 2.0

### **Archaeology and Heritage** Management Plan

Nine Elms Station		
Heritage Overview	The site is located adjacent to an Archaeological Priority Area (APA) that reflects the archaeological potential of the River Thames floodplain. The floodplain has the potential for in situ prehistoric remains and palaeoenvironmental remains. Parts of the site have been occupied by buildings since the mid-19th century. The majority of these buildings probably had simple strip footings or half basements, the construction of which will have truncated earlier remains. The bases of deep cut features, such as pits, ditches and wells may survive beneath this truncation, particularly where there are deeper alluvial deposits.  An Archaeological Written Scheme of Investigation will be produced to mitigate the effect of construction works.	
Key constraints		
Archaeology	To ensure the that works are undertaken with due regard to any archaeological remains Condition 10 of the TWAO planning decision states:	
	No stage of the development within or immediately adjacent to an area identified in the Environmental Statement as being of known or suspected archaeological importance is to commence until a written scheme of investigation for a programme of archaeological work for that stage has been submitted to, and approved by, the local planning authority. Any works agreed must be carried out in accordance with the approved programme.	
	The following archaeological constraints have been identified:	
	<ul> <li>Palaeoenvironmental remains (a resource assumed to extend beyond the site);</li> <li>previously unrecorded archaeological remains.</li> </ul>	
Built Heritage	The proposed works do not impact any listed structures. However, they require the partial demolition of the locally significant Banhams Security building.	
Construction activity	Heritage Measures	
Site preparation	No archaeological measures are required to a depth of 1.5m where works are undertaken within the levels of made ground identified by ground investigations.  The heritage specialist will consult with the GLAAS and / or	
	the local authority to confirm no archaeological measures are required when the scope of works are finalised.	
	Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a	

DOC NO. FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0	Archaeology and Heritage Management Plan
	Northern Line Extension Main Works Contract

	scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Retaining wall and cut and cover excavation	A programme of archaeological investigation will be required during the excavation to target potential archaeological and palaeoenvironmental remains.
	The GLAAS will provide a scope for archaeological investigation. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Demolition	The non-designated Banhams building will require a standing building recording prior to demolition. The recording will be undertaken to the English Heritage level 1 or level 2 standard as appropriate. In addition further English Heritage recording may be required once any internal partitions and false ceilings etc. have been removed.
	The heritage specialist will consult with the GLAAS and / or the local authority to confirm the level of recording necessary following an initial appraisal of the building.
	The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of building recording to be approved by the local planning authority.
Protective Measures	
Documenting and monitoring	Appropriate levels of monitoring and recording will be undertaken. The details are dependent on a site review and consultation with English Heritage and Local Planning Authority. All details of monitoring and recording will be provided within a WSI.
	All site specific measures will be appropriately provided in briefings and/or toolbox talks as appropriate.
Site hoarding	To ensure site security to prevent unauthorised access to heritage assets and damage to or theft from them the contractor is to commence by erecting hoarding to enclose the site.

Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

Kennington Green	
Heritage Overview	The site was open ground until the late-18th century. A pond is represented on early mapping of the site. From the late-18th century the site became incorporated into the new street layout and associated housing developments. A pair of semi-detached houses stood on the north side of Montford Place until the mid-20th Century, now the site of a c.2002 three-sided roofless structure forming a 'screen' between the Green and the distillery.
	Ground investigation undertaken within the footprint of the site show made ground to a depth between 1.90m and 3.50m straight onto natural River Terrace Deposits. This may represent modern truncation of ground levels.
	Where necessary, and as agreed with GLAAS, an archaeological Written Scheme of Investigation will be produced to mitigate the effect of construction works.
Key constraints	
Kennington Conservation Area	Kennington Green is within the Kennington Conservation Area. Conservation Area Consent has been obtained alongside the NLE TWAO for works within Kennington Conservation Area.
	This is within WI2204, and the obligations contained within will be adhered to.
	A number of conditions are attached to this consent – namely;
	The works hereby authorised shall be started not later than 5 years from the date of this consent.
	2. The works hereby authorised shall not begin until a contract has been let for the construction of Work No. 8 authorised by the London Underground (Northern Line Extension) Order 2014.

#### Archaeology

To ensure that the works are undertaken with due regard to any archaeological remains Condition 10 of the TWAO planning decision states:

accordance with that approval.

3. The works hereby authorised shall not begin until the details of planned reinstatement works within the Kennington Conservation Area including hard and soft landscaping and external materials to be used shall be submitted to, and approved in writing by, the local planning authority. All such reinstatement works approved by the local planning authority shall be carried out in

No stage of the development within or immediately adjacent to

**DOC NO.**FLO-N001-2360000-HSE-PLN-00013
Rev. 2.0

# Archaeology and Heritage Management Plan

	an area identified in the Environmental Statement as being of known or suspected archaeological importance is to commence until a written scheme of investigation for a programme of archaeological work for that stage has been submitted to, and approved by, the local planning authority. Any works agreed must be carried out in accordance with the approved programme.
	The following archaeological constraints have been identified:
	<ul> <li>remains of late 18th-century and 19th-century houses;</li> <li>remains of 20th-century manufacturing works; and</li> <li>remains of the prehistoric to medieval periods.</li> </ul>
Built Heritage	To ensure the works are undertaken with due regard to any historic buildings Condition 11 of the TWAO planning decision states:
	Monitoring equipment to be affixed to listed buildings must not be installed until details of the equipment, the monitoring methodology and programme have been submitted to, and approved by, the local planning authority. The details agreed must be carried out in accordance with the approved programme.
	Listed buildings identified near the Kennington Green shaft site include:  • 346, Kennington Road  • 348, Kennington Road  • 350 And 352, Kennington Road  • 354, Kennington Road  • 356, Kennington Road  • 362,364 And 366, Kennington Road  • The Lycee - 1 Stannary Street
Construction activity	Heritage measures
Site preparation	No archaeological measures are required to a depth of 1.5m where works are undertaken within the levels of made ground identified by ground investigations.
	The heritage specialist will consult with the GLAAS and / or the local authority to confirm no archaeological measures are required when the scope of works are finalised.
	Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Retaining wall and cut and	The heritage specialist will consult with the GLAAS and / or

DOC NO.
FLO-N001-2360000-HSE-PLN-00013
Rev. 2.0

Archaeology and Heritage
Management Plan

Northern Line Extension
Main Works Contract

cover excavation	the local authority to confirm no archaeological measures are required when the scope of works are finalised.  Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Protective Measures	
Documenting and monitoring	Appropriate levels of monitoring and recording will be undertaken. The details are dependent on a site review and consultation with English Heritage and Local Planning Authority. All details of monitoring and recording will be provided within a WSI.
Site hoarding	To ensure site security to prevent unauthorised access to heritage assets and damage to or theft from them the contractor is to commence by erecting hoarding to enclose the site.

Rev. 2.0

# Archaeology and Heritage Management Plan

Kennington Park	
Heritage Overview	The site is located adjacent to an APA following the alignment of the Kennington Road. Kennington Park is a Grade II Registered Historic Park and Garden. The site was open ground and in the mid-19th century it was incorporated into Kennington Park.
	Ground investigation undertaken within the footprint of the site show made ground to a depth between 1.90m and 2.90m. straight onto natural River Terrace Deposits. This may represent modern truncation of ground levels. A deposit of Brickearth was identified below the made ground in one borehole. If in situ this may represent an area of good preservation for early archaeological remains.
	Where necessary, and as agreed with GLAAS an Archaeological Written Scheme of Investigation will be produced to mitigate the effect of construction works.
Key constraints	
St Marks Conservation Area	Kennington Park is within the St Marks Conservation Area. Conservation Area Consent has been obtained alongside the NLE TWAO for works within the St Marks Conservation Area.
	This is within WI2204, and the obligations contained within will be adhered to.
	A number of conditions are attached to this consent – namely;
	The works hereby authorised shall be started not later than 5 years from the date of this consent.
	<ol> <li>The works hereby authorised shall not begin until a contract has been let for the construction of Work No. 7 authorised by the London Underground (Northern Line Extension) Order 2014.</li> </ol>
	3. The works hereby authorised shall not begin until the details for the reinstatement of fencing, hard and soft landscaping and any other necessary reinstatement works in the Grade II Registered Kennington Park and the St Mark's Conservation Area, including any external materials to be used, have been submitted to, and approved in writing by, the Local Planning Authority. All such reinstatement works approved by the local planning authority shall be carried out in accordance with that approval.
Kennington Park Grade II Registered Park and Garden	The site lies within Kennington Park which is protected by a Grade II listing on the Register of Historic Parks & Gardens.
Archaeology	To ensure that the works are undertaken with due regard to

**DOC NO.** FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0

# Archaeology and Heritage Management Plan

	any archaeological remains Condition 10 of the TWAO planning decision states:  No stage of the development within or immediately adjacent to an area identified in the Environmental Statement as being of known or suspected archaeological importance is to commence until a written scheme of investigation for a programme of archaeological work for that stage has been submitted to, and approved by, the local planning authority. Any works agreed must be carried out in accordance with the approved programme.  The Environmental Statement identified a the following archaeological constraints:
	<ul> <li>a potential for agricultural remains dating to the medieval to post-medieval periods; and</li> <li>a potential for unrecorded prehistoric and Roman remains.</li> </ul>
Built Heritage	To ensure the works are undertaken with due regard to any historic buildings Condition 11 of the TWAO planning decision states:
	Monitoring equipment to be affixed to listed buildings must not be installed until details of the equipment, the monitoring methodology and programme have been submitted to, and approved by, the local planning authority. The details agreed must be carried out in accordance with the approved programme.
	Listed buildings identified near the Kennington Park shaft site include:  • Numbers 1-7 St Agnes Place and Attached Railings • 10, Kennington Park Place • 11 and 12, Kennington Park Place • The Bishops House, Park Place • Gate Piers and Walls to The Bishops House, Park Place • The Prince Albert Lodge
	The site contains one unlisted building, a lodge built in 1938 (referred to in the ES as Kennington Park Lodge).
Construction activity	Heritage measures
Site preparation	No archaeological measures are required to a depth of 1.0m where works are undertaken within the levels of made ground identified by ground investigations.
	The heritage specialist will consult with the GLAAS and / or the local authority to confirm no archaeological measures are

DOC NO. FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0	Archaeology and Heritage Management Plan
	Northern Line Extension Main Works Contract

	required when the access of works are finalised
	required when the scope of works are finalised.
	Where works require ground reduction that will exceed the levels of made ground identified by ground investigations a scheme of archaeological monitoring will be required. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Retaining wall and cut and cover excavation	A programme of archaeological investigation may be required during the excavation to target areas of potential archaeological remains.
	The GLAAS will provide a scope for archaeological investigation. The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of archaeological work to be approved by the local planning authority.
Demolition	The non-designated lodge may require a standing building recording prior to demolition. The recording would be undertaken to the English Heritage level 1 or level 2 standard as appropriate.
	The heritage specialist will consult with the GLAAS and / or the local authority to confirm the level of recording necessary following an initial appraisal of the building.
	The Heritage Specialist will provide a specification in the form of a WSI for an appropriate programme of building recording to be approved by the local planning authority.
Removal of Park Railings	Temporary removal of park railings for duration of construction works, then reinstatement. Their current state will also be recorded in the reporting on the cottage/lodge.
Protective Measures	
Documenting and monitoring	Appropriate levels of monitoring and recording will be undertaken. The details are dependent on a site review and consultation with English Heritage and Local Planning Authority. All details of monitoring and recording will be provided within a WSI.
Protective barriers	Where appropriate protective barriers are installed as a protective measure to non-designated structures of heritage significance (for example lengths of the parks railings that are not due to be disturbed by the works), during construction. The placement of barriers will be dependent on the potential for impact during the works.
Site hoarding	To ensure site security to prevent unauthorised access to heritage assets and damage to or theft from them the contractor is to commence by erecting hoarding to enclose the

DOC NO.
FLO-N001-2360000-HSE-PLN-00013
Rev. 2.0

Archaeology and Heritage Management Plan

Northern Line Extension Main Works Contract

site.

Konnington Station	
Kennington Station Heritage Overview	Constructed in 1890 for the City & South London Railway and remodelled in 1925 as part of the Northern Line extension project to Morden.
Key constraints	
Grade II Listed Kennington Station	Listed Building Consent has been obtained alongside the NLE TWAO for works to the Grade II Listed Kennington Station.  This is within WI2204, and the obligations contained within will be adhered to.  A number of conditions are attached to this consent – namely;  1. The development hereby permitted shall be begun before the end of five years from the date of this permission.  2. All new internal works, including making good, shall exactly match the original work in both materials and in detailed execution.
	3. At least 21 days' notice shall be given to the Local Planning Authority of the commencement of the works hereby permitted in order that the Local Planning Authorities may make arrangements for any persons or organisations interested in historic buildings to visit the premises for the purposes of photographing or surveying the premises.
Construction activity	Heritage Measures
Construction of two passenger cross passages between the northbound platform tunnels and two	All new internal works, including making good, shall exactly match the original work in both materials and in detailed execution.
cross passages between the southbound platform tunnels	At least 21 days' notice shall be given to the Local Planning Authority of the commencement of the works hereby permitted in order that the Local Planning Authority may make arrangements for any persons or organisations interested in historic buildings to visit the premises for the purposes of photographing or surveying the premises.
Protective Measures	
Documenting and monitoring	Appropriate levels of monitoring and recording will be undertaken. The details are dependent on a site review and consultation with English Heritage and Local Planning Authority.
Protective barriers	Where appropriate protective barriers will be installed as a protective measure during construction to avoid accidental

DOC NO. FLO-N001-2360000-HSE-PLN-00013 Rev. 2.0	Archaeology and Heritage Management Plan
	Northern Line Extension Main Works Contract

	damage of assets that are not due to be affected by the works. The placement of barriers will be dependent on an assessment of risk.
Site hoarding	Working areas will be securely hoarded from publically accessible areas.