

North London Reinforcement Project

Requirement 3 – Written scheme setting out all stages of the authorised development

Volume 01

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LIST OF ACRONYMS

CSE – Cable Sealing End

DCO – Development Consent Order

EFDC – Epping Forest District Council

GIS – Gas Insulated Switchgear

kV – kilovolt

Lee Valley Regional Park - LVRP

London Borough of Enfield – LBE

London Borough of Haringey – LBH

London Borough of Waltham Forest - LBWF

OHL – Overhead Line

PRoW – Public Right of Way

1 INTRODUCTION

1.1 This document

- 1.1.1 This document comprises a written scheme setting out all the stages of the authorised development for the North London Reinforcement Project ('the Project').
- 1.1.2 A written scheme of stages is required by Schedule 2, Requirement 3 of The National Grid (North London Reinforcement) Development Consent Order 2014 ('the DCO'). An extract of Schedule 2 is provided in Appendix A. Version 1 of this stage plan was submitted on 19 November 2018 and with partial approval for the details of Requirement 3 received from all relevant authorities by 03/01/2019¹. A version of the stage plan was submitted at this point in time in order to partially discharge Requirement 3 in order to allow for Stage 1 Early Enabling Works to take place. Version 1 of stage plan stated that a more detailed breakdown of Stages 2-6 of the project will be re-submitted to the relevant Local Authorities prior to the commencement Stage 2. This version of the stage plan seeks to provide that detailed breakdown and to fully discharge Requirement 3.
- 1.1.3 Requirement 3 of the DCO states as follows:
- "3. The authorised development shall not commence until a written scheme setting out all the stages of the authorised development has, after consultation with the relevant highway authority and Lee Valley Regional Park Authority, been submitted to and approved by the relevant planning authority".*
- 1.1.4 Consultation with the relevant Highway Authorities (which are those listed below but also including Essex County Council) has taken place as part of the consultation with relevant Local Planning Authorities as listed below.
- 1.1.5 Consultation with Lee Valley Regional Park has also taken place.
- 1.1.6 This document is submitted for approval to:
- Epping Forest District Council
 - Enfield Council
 - London Borough of Waltham Forest
 - London Borough of Haringey

1.2 Overview of the Project

- 1.2.1 The DCO was made by the Secretary of State for Energy and Climate Change for the Project on 16 April 2014, and came into force on 7 May 2014. The DCO provides powers to National Grid to carry out the Project, which comprises of the replacement of the existing 275kV overhead line (OHL) with a 400kV OHL from Waltham Cross substation in Epping Forest, through Enfield, and then to Tottenham substation in Haringey. The DCO also contains powers to carry out associated works to the substations at Waltham Cross, Brimsdown and Tottenham.

¹ Application reference numbers – Epping Forest District Council: PL/EPF/3123/18; London Borough of Enfield: 18/04500/DCO; London Borough of Haringey: HGY/2018/3384; London Borough of Waltham Forest: 183887

1.2.2 The Project falls within the administrative boundaries of, Epping Forest District Council, Enfield Council, the London Borough of Waltham Forest, and the London Borough of Haringey. The Project is also within the administrative boundaries of the Greater London Authority and Essex County Council, though these are not relevant planning authorities in relation to the Project.

1.2.3 The Project includes the following elements:

- Existing 275kV route uprating to 400kV for 14km from the Waltham Cross substation to Tottenham substation. This would comprise of:
 - The existing 275kV conductor cables (wires) to be removed and replaced (i.e. reconducted) with 400kV wires. This would use the existing pylons.
- An extension to the Waltham Cross substation to provide a new 400kV Gas Insulated Switchgear (GIS) substation and associated OHL entry modifications.
- The replacement of two 275/132 kV Super Grid Transformers (SGTs) at Brimsdown with two new 400/132kV SGTs, located both inside and partially outside the existing Brimsdown substation boundary, with underground cable connections between these new SGTs and the existing substation.
- Works to bypass Tottenham substation, including the construction of a new pylon (VC1R) and cable sealing end (CSE) compound south of the Tottenham substation, and the removal of the existing VC1 pylon.
- Associated works, for example, temporary access roads, highway works temporary construction compounds, scaffolds, work sites and ancillary works.

2 SCHEME SETTING OUT ALL STAGES OF THE AUTHORISED DEVELOPMENT

2.1 Stages of the authorised development

- 2.1.1 The Project has been divided into 5 stages, as set out in Table 2.1 below. Appendix B supports Table 2.1, providing plans of the Stages of the authorised development.
- 2.1.2 The Works Plans show the location of Pylons and other features referenced below. Plans showing the division of stages are provided in Appendices B and C.

Table 2.1 - stages of the authorised development

Stage	Name	Description	Indicative Period of works	Relevant Local Planning Authority
0	Early enabling works	Construction of 12 foundations for Cable Sealing End Compounds at Tottenham substation, at the location of pylon VC1R. [This stage of work has been completed and is therefore not detailed in this document]	Q1 2019 – Q3 2019	London Borough of Haringey
1	Waltham Cross substation	Establishment of material holding facility and laydown area by Stubbins Hall Lane. Construction of new gas insulated switchgear substation at Waltham Cross.	Q1 2024 – Q2 2028	Epping Forest District Council
2	Brimsdown substation	Extend existing Brimsdown substation. Construction of a new bridge over the Small River Lee (Turkey Brook). Establishment of laydown area. Installation of cable sealing end compound at ZBC19, and underground cables to Brimsdown substation; removal of cable sealing end compounds at ZBC20, and cables between ZBC20 and Brimsdown substation.	Q3 2024 – Q2 2028	London Borough of Enfield

Stage	Name	Description	Indicative Period of works	Relevant Local Planning Authority
		Remodelling existing bund and works to temporarily divert footpath. Creation of new permanent footpath linking footpath at dismantled railway to Footpath No. 103; and new diversion Footpath No. 103.		
3a	Tottenham substation preparatory works	Demolition and remediation works.	Q1 2024 – Q3 2024	London Borough of Haringey
3b	Tottenham substation	Establishment of material holding facility and laydown area. Works to facilitate bypassing of Tottenham substation.	Q3 2024 – Q2 2028	London Borough of Haringey
4	Reconducting Tottenham Hackney VC2	Installation of new transmission pylon VC1R, and conductors, insulators and fittings between VC1R and VC2, and new connections between VC1R and gantries. Removal of existing transmission pylon VC1, and conductors, insulators and fittings between VC1R and VC2, and connection between VC1 and the existing Tottenham substation.	Q4 2024 – Q2 2028	London Borough of Haringey
5	Over Head Line	Uprating of ZBC OHL between ZBC2 and ZBC43. Removal of existing transmission pylon ZBC1, the conductors between ZBC1 and ZBC2, and the connection between ZBC1 to Waltham Cross substation. Removal of existing transmission pylon 4ZM1; installation of new transmission pylon 4ZM1R.	Q4 2025 – Q4 2027	Epping Forest District Council London Borough of Enfield London Borough of Haringey London Borough of Waltham Forest

Stage	Name	Description	Indicative Period of works	Relevant Local Planning Authority
		Modifications to existing protection and control equipment to facilitate the bypass of Tottenham substation. Establishment of material holding facility and laydown area at car park by Lee Park Way.		

2.1.3 The stages of the authorised development have been determined by a consideration of the construction activities required to be completed, the construction methodology, geographical location of works, the programme for delivery and sequencing of works. Access will be required at different locations throughout the 5 stages to make sure that the Project can be completed in the most efficient way.

2.1.4 The majority of stages have been sequenced to flow in terms of geographical location and timescale of the works. However, there is some overlap between temporary works created to construct the Project.

2.1.5 A detailed explanation of the construction activities associated with each stage is provided in Sections 3 – 7 of this document.

2.2 Outline Programme

2.2.1 An outline programme detailing the stages of the authorised development is provided in Appendix D.

2.3 Relevant Requirements

2.3.1 A schedule of the relevant Requirements for each stage of the authorised development is provided in Appendix E.

3 DETAILED OVERVIEW OF STAGE 1 – WALTHAM CROSS SUBSTATION

3.1 Stage 1 area

- 3.1.1 Stage 1 relates to works to Waltham Cross substation. Stage 1 will commence in Q2 2024 and will be completed in Q2 2028. Plans showing Stage 1 proposed works are provided at Appendix D.

3.2 Relevant planning authorities affected by Stage 1

- 3.2.1 The relevant planning and highway authority for Stage 1 is Epping Forest District Council (EFDC). Part of the works area is within the Lee Valley Regional Park (LVRP), who would be consulted prior to the submission of Requirements 3, 5, 13 and 16.

3.3 Stage 1 description

Preparatory/Temporary Works

- 3.3.1 Construction compound: a material holding facility and laydown area will be established off Stubbins Hall Lane (Work No. 5). This will include a vehicle holding area with a Traffic Coordinator to manage delivery vehicles and brief drivers on the site driving rules etc.
- 3.3.2 Access: existing access points to the site via B194 Holyfield Lane / Stubbins Hall Lane will be used and no new accesses will be required for Stage 1. Access will be via existing tracks, with upgrades made to the running surface where necessary (e.g. very wet ground), temporary roads of either aluminium panels or stone on a geotextile liner will be used. At the Waltham Cross Substation site, there will be limited widening of the LVRP access track (from Stubbins Hall Lane) to facilitate two-way HGV traffic flow.
- 3.3.3 The Certified Environmental Measures document outlines the following general traffic management measures for all temporary construction vehicular access points:
- Temporary construction signage - to inform local road users of the construction access points and presence of HGVs.
 - Traffic Routing Strategy - to ensure vehicles accessing each site do so via the most appropriate route and to avoid unnecessary conflict with sensitive areas.
 - Access security personnel - to ensure access points are managed safely and securely.
- 3.3.4 Vegetation clearance: removal of plants and vegetation in the vicinity of Waltham Cross substation to allow for the works within this stage.

Main Works

- 3.3.5 A new GIS substation will be constructed, including nine ancillary plant modules, a welfare block, a new foul cess pit, an equipment garage, up to four landing gantries, troughing for below ground services, street lighting, fencing, gates, signage, CCTV and a permanent access road. Part of the existing 275kV substation associated with the 275kV circuits being upgraded and two decommissioned cable sealing end (CSE) compounds will be removed. Two existing 275–400kV transformers will be dismantled and removed; two 400–

275kV transformers will be disconnected; and the transformers will be relocated to an on-site storage location (Work No. 4).

Landscaping/Replacement Planting

- 3.3.6 Details of any relevant landscaping and replacement planting if required will be submitted to the relevant planning authorities for approval prior to commencement of Stage 1.

4 DETAILED OVERVIEW OF STAGE 2 – BRIMSDOWN SUBSTATION

4.1 Stage 2 area

- 4.1.1 Stage 2 relates to works to Brimsdown Substation. Stage 2 will commence in Q3 2024 and will be completed in Q2 2028. Plans showing Stage 2 proposed works are provided at Appendix B.

4.2 Relevant planning authorities affected by Stage 2

- 4.2.1 The relevant planning and highway authority for Stage 2 is London Borough of Enfield (LBE). Part of the works area is within the LVRP, who would be consulted prior to the submission of Requirements 3, 5, 13 and 16.

4.3 Stage 2 description

Preparatory/Temporary Works

- 4.3.1 Construction compound: a material holding facility and laydown area will be established off Stubbins Hall Lane.
- 4.3.2 Access: existing accesses to Brimsdown Substation from Mollison Avenue will be used and no new accesses will be required for Stage 2 (a new access will be required from Mollison Avenue to facilitate works in Stage 5, see details in Section 7 below). Access will be via existing tracks, with upgrades made to the running surface where necessary (e.g. very wet ground), temporary roads of either aluminium panels or stone on a geotextile liner will be used.
- 4.3.3 The Certified Environmental Measures document outlines the following general traffic management measures for all temporary construction vehicular access points:
- Temporary construction signage - to inform local road users of the construction access points and presence of HGVs.
 - Traffic Routing Strategy - to ensure vehicles accessing each site do so via the most appropriate route and to avoid unnecessary conflict with sensitive areas.
 - Access security personnel - to ensure access points are managed safely and securely.
- 4.3.4 Earthworks: remodelling of an existing bund and works to temporarily divert Public Right of Way (PROW) Footpath No. 103 will be undertaken (Work No. 7C).

Main Works

- 4.3.5 The central aspect of works in Stage 2 is the extension of the existing Brimsdown substation, comprising earthworks, trenching, two 400–132kV transformer bays,

air insulated switchgear, new diesel generator (as back-up low voltage electricity supply to the substation). In addition, existing 275–132kV transformers, foundations and ancillary equipment will be demolished; and an existing 132kV cable will be diverted (Work No. 6).

- 4.3.6 A new bridge over the Small River Lee (Turkey Brook) will be constructed to accommodate a new access and cable route from the existing Brimsdown substation to the new CSE compounds at pylon ZBC19 (Work No. 7A).
- 4.3.7 Following which, a new cable sealing end compound at ZBC19 and up to six 400kV underground cables to the substation over the new bridge will be installed. The existing CSE compound at ZB20, and cables between ZBC20 and the substation, will be removed (Work No. 7B).
- 4.3.8 In addition, works will be undertaken to create a new permanent footpath linking from the dismantled railway to Footpath No. 103 (Work No. 7D); and new permanent diversion of Footpath No. 103 (Work No. 7E).

Landscaping/Replacement Planting

- 4.3.9 Details of any relevant landscaping and replacement planting if required will be submitted to the relevant planning authorities for approval prior to commencement of stage 2.

5 DETAILED OVERVIEW OF STAGE 3 – TOTTENHAM SUBSTATION WORKS

5.1 Stage 3 area

- 5.1.1 Stage 3 relates to works to facilitate bypassing Tottenham substation. Stage 3 will commence in Q1 2024 and will be completed in Q2 2028; the works will be split into sub-stages 3a and 3b, as outlined below. Plans showing Stage 3 proposed works are provided at Appendix B.

5.2 Relevant planning authorities affected by Stage 3

- 5.2.1 The relevant planning and highway authority for Stage 3 is London Borough of Haringey (LBH). Part of the works area is within the LVRP, who would be consulted prior to the submission of Requirements 3, 5, 13 and 16.

5.3 Stage 3a description

Preparatory/Temporary Works

- 5.3.1 Demolition and remediation works: prior to main work construction commencing for the bypass of Tottenham substation, remediation of contaminated land to the north of the existing substation compound. is required. The former bus depot building on Leaside Road will be demolished as part of these works.
- 5.3.2 Access: existing accesses to Tottenham Substation from Watermead Avenue and Leaside Road will be used and no new accesses will be required for Stage 3 (upgrades will be required to an access from Watermead Avenue to facilitate works in Stage 4, see details in Section 6 below). Access will be via existing tracks, with upgrades made to the running surface where necessary (e.g. very wet ground), temporary roads of either aluminium panels or stone on a geotextile liner will be used.

5.3.3 The Certified Environmental Measures document outlines the following general traffic management measures for all temporary construction vehicular access points:

- Temporary construction signage - to inform local road users of the construction access points and presence of HGVs.
- Traffic Routing Strategy - to ensure vehicles accessing each site do so via the most appropriate route and to avoid unnecessary conflict with sensitive areas.
- Access security personnel - to ensure access points are managed safely and securely.

5.4 Stage 3b description

Preparatory/Temporary Works

5.4.1 Construction compound: a material holding facility and laydown area will be established off Watermead Way (Work No. 13).

5.4.2 Access: as per Stage 3a.

Main Works

5.4.3 To facilitate the bypass of Tottenham substation, existing phase and earthwire conductors from pylon ZBC43 to existing anchor blocks will be removed, as well as existing cables connecting ZBC43 to Tottenham substation. New sealing end compounds will be installed at pylons ZBC43 (northern) and VC1R (southern), as well as new phase and earthwire conductors to gantries within the northern compound. Up to twelve 400kV cables predominantly underground from the northern CSE compound at pylon ZBC43 to the southern CSE compound at pylon VC1R will be installed. Two cable bridge will be installed across Pymmes Brook (Work No. 10).

Landscaping/Replacement Planting

5.4.4 Details of any relevant landscaping and replacement planting if required will be submitted to the relevant planning authorities for approval prior to commencement of Stage 3b.

6 DETAILED OVERVIEW OF STAGE 4 – RECONDUCTING TOTTENHAM HACKNEY

6.1 Stage 4 area

6.1.1 Stage 4 relates to works at Tottenham substation, concerning the reconducting between Tottenham and Hackney via VC2. Stage 4 will commence in Q4 2024 and will be completed in Q2 2028. Plans showing Stage 4 proposed works are provided at Appendix B.

6.2 Relevant planning authorities affected by Stage 4

6.2.1 The relevant planning and highway authority for Stage 4 is London Borough of Haringey (LBH). Part of the works area is within the LVRP, who would be consulted prior to the submission of Requirements 3, 5, 13 and 16.

6.3 Stage 4 description

Preparatory/Temporary Works

- 6.3.1 Construction compound: to be shared with that for Stage 3.
- 6.3.2 Access: existing access points to the site via Watermead Way will be used and no new accesses will be required. Access will be via existing tracks, with upgrades made to the running surface where necessary (e.g. very wet ground), temporary roads of either aluminium panels or stone on a geotextile liner will be used. At the existing junction of Watermead Way/Marigold Road, dropped kerbs will be installed to facilitate access to pylon VC1.
- 6.3.3 The Certified Environmental Measures document outlines the following general traffic management measures for all temporary construction vehicular access points:
- Temporary construction signage - to inform local road users of the construction access points and presence of HGVs.
 - Traffic Routing Strategy - to ensure vehicles accessing each site do so via the most appropriate route and to avoid unnecessary conflict with sensitive areas.
 - Access security personnel - to ensure access points are managed safely and securely.

6.3.4 Main Works

- 6.3.5 The works in Stage 4 comprise the installation of new transmission pylon VC1R, and conductors, insulators and fittings between VC1R and VC2, and new connections between VC1R and gantries. In addition, the existing transmission pylon at VC1 will be removed, along with conductors, insulators and fittings between VC1R and VC2, and connection between VC1 and the existing Tottenham substation.

Landscaping/Replacement Planting

- 6.3.6 Details of any relevant landscaping and replacement planting if required will be submitted to the relevant planning authorities for approval prior to commencement of Stage 4.

7 DETAILED OVERVIEW OF STAGE 5 – OVER HEAD LINE WORKS WALTHAM ABBEY TO TOTTENHAM

7.1 Stage 5 area

- 7.1.1 Stage 5 relates to uprating of the overhead lines (OHL) between Waltham Abbey and Tottenham. Stage 5 will commence in Q4 2025 and will be completed in Q4 2027. Plans showing Stage 5 proposed works are provided at Appendix B

7.2 Relevant planning authorities affected by Stage 5

- 7.2.1 As Stage 5 crosses the entire length of the authorised development, the relevant planning and highway authorities for this stage are Epping Forest District Council, London Borough of Enfield, London Borough of Haringey and London Borough

of Waltham Forest. Part of the works area is within the Lee Valley Regional Park, who would be consulted prior to the submission of Requirements 3, 5, 13 and 16.

7.3 Stage 5 description

Preparatory/Temporary Works

- 7.3.1 Construction compound: a material holding facility and laydown area will be established in the car park off Lee Park Way with construction related buildings and welfare facilities (Work No. 8). This laydown area will, in part, be used for loading barges to bring equipment to pylons ZBC29 – ZBC35; an existing wharf at this location will be brought back into use to facilitate this.
- 7.3.2 The usual working area around each pylon is expected to be approximately a square that has its borders 3m from the edge of the pylon base.
- 7.3.3 Access: Vehicular access (for a 4x4 truck and a tractor winch) must be made to each pylon. At suspension pylons this involves the clearance of any scrub that has grown up along the access route or under the pylon. Where possible, access will be via existing tracks, with upgrades made to the running surface where necessary (e.g. very wet ground), temporary roads of either aluminium panels or stone on a geotextile liner will be used. Pontoon boats and docking facilities will be necessary to gain access to pylons ZBC2 – ZBC5 as these pylons are situated on islands, and to pylons ZBC29 – ZBC35 as these pylons are situated between the William Girling Reservoir and the Lee Navigation (without access available for large road vehicles). A new access will be created from Beaulieu Drive to facilitate access to pylon ZBC10. Widening the access on Mollison Avenue into the Prince of Wales field will be undertaken to provide access to pylon ZBC19. A temporary stone access track will be installed from Mollison Avenue across the Prince of Wales field to the temporary laydown and work area; site security will be provided to ensure safe crossing of pedestrians using the PRow which crosses the access track. Dropped kerbs will be installed at the access to pylon ZBC38.
- 7.3.4 Platforms: at tension pylons, the use of a work platform will be necessary. Platforms are between 16m and 20m long and are winched up the pylons to allow works to continue safely whilst tension is kept on the wire. This includes placing a concrete block close to the pylon as an anchor for the platform and the requirement for a greater degree of access to allow the delivery and handling of the work platform.

Main Works

- 7.3.5 The central aspect of the works in Stage 5 is uprating the ZBC OHL between ZBC2 and ZBC43 from 275kV to 400kV. This includes uprating the existing phase conductors, insulators and fittings, replacing steel work and replacing existing earthwire (Work No. 1).
- 7.3.6 At Waltham Cross two new transmission pylons ZBC1A and ZBC1B, new phase conductors, insulators, fittings and an earthwire from pylon ZBC2 to pylon ZBC1B and pylon ZBC1A, and new connections from pylon will be installed (Work No. 3A). Subsequently, the existing transmission pylon ZBC1 will be removed in combination with the conductors between ZBC1 and ZBC2, and the connection between ZBC1 to Waltham Cross substation ZBC1A into the new GIS substation at Waltham Cross (Work No. 3B). This is linked to works covered under Stage 1.

- 7.3.7 Also at Waltham Cross, work will be undertaken to remove the existing transmission pylon 4ZM1 (Work No. 2B). This will be replaced by a new transmission pylon 4ZM1R, alongside the installation of new phase conductors, insulators, fittings and an earthwire conductor from pylon 4ZM1R to pylon 4ZM2, and installation of new connections from pylon 4ZM1R into the new gas insulated switchgear (GIS) substation at Waltham Cross (Work No. 2A).
- 7.3.8 In addition, to facilitate the bypass of Tottenham substation some modifications will be made to existing protection and control equipment (Work No. 9). This is linked to works covered under Stage 3.

Landscaping/Replacement Planting

- 7.3.9 Details of any relevant landscaping and replacement planting if required will be submitted to the relevant planning authorities for approval prior to commencement of Stage 5.

8 IMPLEMENTATION

8.1 The stage plan in implementation of the Project

- 8.1.1 Should the content of this scheme need to be updated, an updated version of this document will be submitted to all the relevant planning authorities for approval under Requirement 3. The relevant planning authorities would be made aware of a potential future submission.

Appendix A – Schedule 2 Requirements of the National Grid (North London Connection Project) Order 2014

SCHEDULE 2 REQUIREMENTS

Article 45

Interpretation

1. In this Schedule—

“approved details” means the design drawings and sections certified under article 43 by the Secretary of State for the purposes of this Order;

“commence” means begin to carry out a material operation, and any derivative of “commence” shall be construed accordingly;

“material operation” means a material operation as defined in section 155 of the 2008 Act (when development begins) which is comprised in or carried out for the purposes of the authorised development, or any part of the authorised development, but does not include any remediation, environmental (including archaeological) investigation, site or soil survey, erection of contractors’ work compound, erection of site office, erection of fencing to site boundaries or marking out of site boundaries; and

“stage” means a defined section or part of the authorised development, the extent of which is shown in a scheme submitted to and approved by the relevant planning authority pursuant to requirement 3.

Time Limits

2. The authorised development must be commenced within 5 years of the date of this Order.

Stages of authorised development

3. The authorised development shall not commence until a written scheme setting out all the stages of the authorised development has, after consultation with the relevant highway authority and Lee Valley Regional Park Authority, been submitted to and approved by the relevant planning authority.

In accordance with approved details

4. The authorised development shall be carried out in accordance with the approved details unless otherwise agreed by the relevant planning authority.

Landscaping

5.—(1) No stage of the authorised development shall commence until a written landscaping scheme for that stage has, after consultation with the Lee Valley Regional Park Authority where the scheme refers to any land within the boundary of the Lee Valley Regional Park, been submitted to and approved by the relevant planning authority.

(2) Each landscaping scheme submitted under requirement 5(1) shall reflect the environmental measures set out in the environmental measures document.

(3) Where submitted for land in the designated Enfield Lock Conservation Area, a landscaping scheme submitted under requirement 5(1) shall include measures that preserve the character and appearance of the Enfield Lock Conservation Area, to the satisfaction of the relevant planning authority.

(4) Each landscaping scheme submitted under requirement 5(1) shall include details of—

- (a) retained landscape features;
- (b) location, number, species, size and planting density of any proposed planting;
- (c) cultivation, importing of materials and other operations to ensure plant establishment;

- (d) implementation timetables for all landscaping;
- (e) temporary fencing that complies with current best practice to protect trees and hedgerows adjacent to the works;
- (f) the dimensions and materials for new sections of pedestrian or cycle paths where applicable; and
- (g) the colour of permanent security fencing around infrastructure.

Implementation and maintenance of landscaping

6.—(1) All landscaping work shall be carried out in general accordance with the relevant landscaping scheme and implementation timetable approved under requirement 5.

(2) Any tree or shrub planted as part of a landscaping scheme approved under requirement 5 that, within a period of five years after planting, is removed, dies or becomes in the opinion of the relevant planning authority seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise approved by the relevant planning authority.

Highway accesses

7.—(1) No stage of the authorised development shall commence until for that stage written details of the siting, design and layout of any new permanent or temporary means of access to a highway to be used by vehicular traffic, or any alteration to an existing means of access to a highway used by vehicular traffic, has, after consultation with the relevant highway authority, been submitted to and approved by the relevant planning authority.

(2) The highway accesses must be constructed in accordance with the approved details unless otherwise agreed with the relevant planning authority.

(3) No stage of the authorised development shall commence until for that stage, a written access management scheme for the arrangements for the use and maintenance of highway accesses during construction of that stage has been submitted to and approved by the relevant highway authority.

(4) The access management scheme must be carried out in accordance with the approved details unless otherwise agreed with the relevant highway authority.

Public rights of way

8.—(1) No authorised development that would affect footpath V at Angel Road North Circular Road, London N18 3SB shall commence until a written implementation plan and specification for the making up of an alternative right of way has been submitted to and approved by the relevant highway authority.

(2) The alternative footpath between FP74 and FP76 via FP75 as shown on Sheet 8 of the access/rights of way plans shall be implemented in accordance with the approved plan and specification unless otherwise agreed with the relevant highway authority.

Construction traffic management plan

9.—(1) No stage of the authorised development shall commence until a construction traffic management plan for that stage has been submitted to and approved by the relevant highway authority. The construction traffic management plan for that stage shall include—

- (a) construction vehicle routing plans;
- (b) site access plans;
- (c) means of managing shared use routes, including pedestrian and cycling safety measures where applicable;
- (d) proposals for the scheduling and timing of movements of delivery vehicles;
- (e) proposals for assessing the existing condition of affected highways;
- (f) proposals for the making good of any incidental damage to highways by construction traffic associated with that stage of the authorised development including street furniture, structures, drainage features, highway verge and carriageway surfaces; and

(g) construction laydown area details affecting highways.

(2) Each construction traffic management plan shall be implemented as approved unless otherwise agreed with the relevant highway authority.

Surface water drainage

10.—(1) No stage of the authorised development shall commence until for that stage, written details of the surface and foul water drainage system (including means of pollution control) have, after consultation with the sewerage and drainage authority, been submitted to and approved by the relevant planning authority.

(2) The surface and foul water drainage system must be constructed in general accordance with the details approved in accordance with requirement 10(1) unless otherwise agreed with the relevant planning authority.

Contaminated land and groundwater

11.—(1) No stage of the authorised development shall commence until a written scheme applicable to that stage, to deal with the contamination of any land, including groundwater, within the Order limits which is likely to cause significant harm to persons or pollution of controlled waters or the environment has, after consultation with the Environment Agency, been submitted to and approved by the relevant planning authority.

(2) Each scheme submitted under requirement 11(1) shall include an investigation and assessment plan and relevant reports, prepared by a specialist consultant approved by the relevant planning authority in consultation with the Environment Agency, to identify the extent of any contamination and the remedial measures to be taken to render the land fit for its intended purpose, together with a management plan which sets out immediate and long-term remedial measures with respect to any contaminants found to be remaining on the site. The plan shall include a scheme of post-remedial monitoring, as necessary to demonstrate that the remediation works have been carried out appropriately and site remediation criteria have been met.

(3) Remedial measures must be carried out in general accordance with the scheme approved in accordance with requirement 11(1) unless otherwise agreed with the relevant planning authority. Where provided for in the scheme, post-remedial monitoring must be carried out to demonstrate that the remediation works have been carried out appropriately and the site remediation criteria have been met.

Ecological Management Strategy

12.—(1) No stage of the authorised development shall commence until a written ecological management strategy applicable to that stage, reflecting the ecological measures included in the environmental measures document, has after consultation with the Environment Agency, Natural England and, where it refers to any land within the boundary of the Lee Valley Regional Park, Lee Valley Regional Park Authority, been submitted to and approved by the relevant planning authority.

(2) Each ecological management strategy prepared in accordance with requirement 12(1) shall include an implementation timetable and must be carried out as approved unless otherwise agreed with the relevant planning authority.

Construction environmental management plan

13.—(1) No stage of the authorised development shall commence until a construction environmental management plan for that stage specifying measures to be used to minimise the impacts of construction works, such as means of minimising pollution from dust, noise, vibration and lighting, wheel cleansing facilities, routes for construction traffic and working hours and reflecting the measures included in the environmental measures document has, after consultation with the Lee Valley Regional Park Authority where it refers to any land within the boundary of the Lee Valley Regional Park, been approved by the relevant planning authority.

(2) All construction works shall be undertaken in accordance with the construction environmental management plan prepared in accordance with requirement 13(1), unless otherwise agreed by the relevant planning authority.

Archaeology

14.—(1) No stage of the authorised development shall commence until for that stage, a written scheme for the investigation of areas of archaeological interest (as identified in the environmental measures document) has, after consultation with the Historic Buildings and Monuments Commission for England, been approved by the relevant planning authority.

(2) Each scheme submitted under requirement 14(1) shall identify areas where one or more of—

- (a) field work; and
- (b) a watching brief

are required, and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found.

(3) Any archaeological works or watching brief carried out under the scheme submitted under requirement 14(1) must be by a suitably qualified person or body.

(4) Any archaeological works or watching brief must be carried out in general accordance with the scheme approved under requirement 14(1) unless otherwise agreed with the relevant planning authority.

Flood Storage

15.—(1) Work No. 7A and 7B shall not commence until a written scheme for compensatory flood storage has been submitted to and has, after consultation with the Environment Agency, been approved by the Enfield London Borough Council.

(2) The compensatory flood storage shall be constructed in accordance with the approved scheme.

(3) The written scheme of flood compensation shall include—

- (a) a schedule of staging and timing relating to the construction of Work No. 7A, 7B and the compensatory flood storage;
- (b) flood storage up to and including the modelled 1 to 100 chance in any year including a 20% allowance for climate change flood level; and
- (c) no increase in flood risk off site.

Works within the Lee Valley Regional Park

16. Where an application for consent or agreement is required under requirements 12, 13 or 14 and the application relates to land within the boundary of the Lee Valley Regional Park, the undertaker must give written notice to the Lee Valley Regional Park Authority that an application has been submitted.

Approvals given

17.—(1) Any approval or agreement which is given by the relevant planning authority or relevant highway authority under these requirements must be given in writing.

(2) Where the words “unless otherwise approved by the relevant planning authority” or “unless otherwise agreed with the relevant planning authority” or “unless otherwise agreed with the relevant highway authority” are used in these requirements such approval or agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the relevant planning authority or relevant highway authority that the subject matter of the approval or agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

Amendments to approved details

18.—(1) With respect to any requirement which requires the authorised development to be carried out in accordance with the details approved by the relevant planning authority or relevant highway authority, the approved details shall be taken to include any amendments that may subsequently be approved in writing by the relevant planning authority or relevant highway authority.

(2) Where any amendments are proposed to approved details in relation to any requirement in this Schedule and that requirement requires prior consultation with a third party the undertaker shall consult with that third party prior to submitting an application to amend the approved details.

(3) Where amendments are proposed to approved details in relation to any requirement in this Schedule they must be submitted in writing to the relevant planning authority or relevant highway authority.