

MAY 2025
NATIONAL GRID

TOTTENHAM SUBSTATION INITIAL TRAFFIC ASSESSMENT REPORT

NEW OFFICE AND WELFARE BUILDING



COWI

ADDRESS COWI UK Limited
Derwent House
RTC Business Park
London Road
Derby
DE24 8UP

TEL +44 1332 343 800
WWW cowi.com

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1 Introduction

1.1 Brief

National Grid has commissioned COWI to prepare a Traffic Assessment Report to identify potential constraints on the road network for traffic associated with construction of a replacement office and welfare building for their substation at Tottenham in North London.

1.2 Site Location

The site is located adjacent to Watermead Way, approximately 0.9km off the A406 in Tottenham North London.

The site is identified on the site location plan.

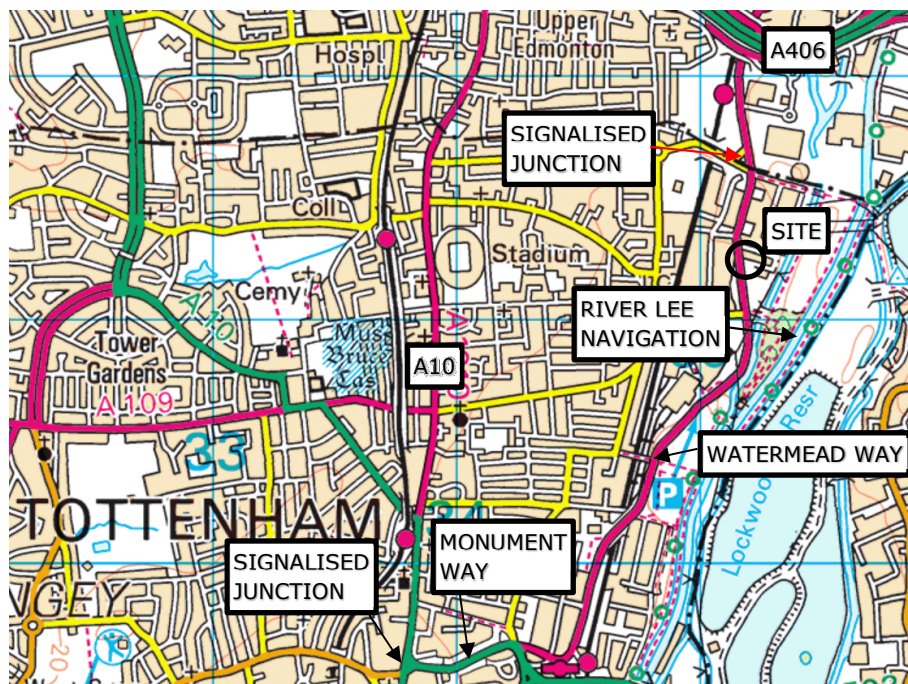


Fig 1-1: - Site Location (Streetmap)

2 Proposed Route to Site

2.1 Route Description

The proposed route to site for all construction traffic is either via the A406 or the A10, then either via Monument Way or directly along Watermead Way. This is shown on Figure 1-1.

2.1.1 A406

The A406 (North Circular Road) is a major road around central London, this runs from Chiswick in the west to Woolwich in the east. In the vicinity of the site it is a dual carriageway road, with 2 eastbound lanes and 2 westbound lanes, approximately 17m wide.

In the vicinity of the junction with Watermead Way, a speed limit of 50mph is in force.

2.1.2 A10

The A10 is a major road running from London Bridge through central London to King's Lynn in Norfolk. In the vicinity of the site it is a dual carriageway road, with 2 northbound lanes and 2 southbound lanes, approximately 12m wide.

In the vicinity of the junction with Monument Way, a speed limit of 30mph is in force.

2.1.3 Watermead Way (A503)

Watermead Way is a local road that runs south approximately 1.1km from the A406 to the site. From a grade separated junction on the A406 via Montagu Road and Conduit Lane, Watermead Way serves the Mowlem Trading Estates and Upper Edmonton area. The road is a single carriageway road with crawler lane sections, approximately 12m wide. A 40mph speed limit applies to this road.

The existing access off Watermead Way to the site provides access via a filter lane from the northbound lane as well as access from the southbound lane. Access on to the north and southbound lanes of Watermead Way is provided from the site access.

2.1.4 Monument Way (A503)

Monument Way is a local road running east 0.8km from the A10 which then becomes Watermead Way via Hale Road. Watermead Way then continues 1.8km from Monument Way to the site.

From a signalised junction with the A10 Monument Way serves the Tottenham Hale area. This road is a dual carriageway road, approximately 22m wide. A speed limit of 30mph is in force.

2.1.5 Site Access

It is considered that the existing substation access road will be sufficient to provide access to the site.

2.2 Consultation with Road Authorities

The purpose of this document is to support a Planning Application for the construction of a replacement office and welfare building consent. Prior to use of the above routes by construction vehicles, detailed consultation will be undertaken by the contractor with Transport for London (TfL), and the Borough of Haringey, to finalise and agree a traffic management plan taking into account the measures noted in Section 5.

Transport for London is responsible for the maintenance, management, and operation of the A406 and A10. Haringey London Borough Council are responsible for Watermead Way and Monument Way.

The purpose of detailed consultation would be to advise roads authorities of the replacement office and welfare building proposal at the substation, to identify and confirm potential constraints on roads to be used by construction traffic and agree suitable mitigation, where required.

The following section identifies potential constraints that may affect general construction traffic.

3 Route Constraints and Mitigation

3.1 General Construction Traffic

3.1.1 A406

No constraints have been identified on the A406.

3.1.2 A10

No constraints have been identified on the A10.

3.1.3 Watermead Way

No constraints have been identified along this route.

At the junction with the A406 a signalised junction allows access from both directions of the A406 onto Montagu Road which becomes Conduit Lane. A right filter lane on Conduit Lane is the start of Meridian Way which becomes Watermead Way.

3.1.4 Monument Way

No constraints have been identified on Monument Way.

At the junction with the A10 a signalised junction allows access from both directions of the A10.

3.1.5 Existing Site Access

The existing site access off Watermead Way allows access from both directions.

4 Construction Vehicle Numbers

4.1 General Construction Traffic

General construction traffic, including both light and heavy vehicles is summarised in Table 4-1.

Phase	Peak Light Vehicles / Day	Peak Heavy Vehicles / Day
Ground Engineering	20	10
Superstructure Engineering	20	5
M&E Works	10	5

Table 4-1: - General Construction Vehicle Numbers.

Annual Average Daily Flow (AADF) statistics for the relevant section of the A406 were obtained from the Department for Transport (DfT) website. The most recently published figures (for 2023) show a total average of 103,053 vehicles per day. This includes 19,785 light goods vehicles per day, and 5,613 heavy goods vehicles per day.

Annual Average Daily Flow (AADF) statistics for the relevant section of the A10 were obtained from the Department for Transport (DfT) website. The most recently published figures (for 2023) show a total average of 35,401 vehicles per day. This includes 5,216 light goods vehicles per day, and 1,071 heavy goods vehicles per day.

Annual Average Daily Flow (AADF) statistics for the relevant section of Watermead Way were obtained from the Department for Transport (DfT) website. The most recently published figures (for 2023) show a total average of 29,250 vehicles per day. This includes 5,995 light goods vehicles per day, and 2,260 heavy goods vehicles per day.

HGV traffic movement will consist of the delivery of plant, materials and equipment to the site during the construction periods detailed in Table 4-1. This will be spread throughout the working day.

It is not considered that the vehicle numbers noted in Table 4-1 will have a significant impact on the existing traffic flows.

5 Proposed Traffic Management

Site preparation and construction will create additional traffic on the local and major road network.

Certain roads, particularly the A406, are already frequently used by heavy goods vehicles and would allow for additional heavy traffic to be accommodated. Where this is not the case, construction traffic may be managed by implementing a Traffic Management Plan.

In order to address potential impacts from construction traffic, it is proposed that the construction contract would require the contractor to prepare a Traffic Management Plan, which could include the following mitigation measures:

- > The contractor will liaise with Transport for London and Haringey London Borough Council to determine appropriate traffic management arrangements for construction vehicle movements;
- > The Contractor will agree appropriate and safe routes to and from the site with Transport for London and Haringey London Borough Council, and all construction vehicles will be required to use approved access routes;
- > Movement of loads may be restricted to take place outside peak flow hours to minimise disruption to general traffic flows;
- > Issues relevant to the public road network that the Contractor should consider and mitigate against include, inter alia, measures to minimise dust and dirt being deposited due to construction operations;
- > Appropriate signage warning other motorists of the presence of construction vehicles should be implemented, where appropriate;
- > Appropriate signage restricting vehicle speeds on the major and minor roads to be considered in discussion with Transport for London and Haringey London Borough Council, including consideration of temporary speed restrictions on Watermead Way in proximity of the site.
- > The contractor will monitor and ensure that agreed mitigation measures are being implemented.

6 Summary and Conclusion

Roads to be used by general construction traffic have been identified and an initial assessment of possible constraints undertaken.

Construction traffic routes to the site are considered to be suitable, with no significant impact on the existing traffic conditions during the construction periods anticipated.

Following construction, there will be no change in the use of the facility compared to the previous facility, therefore no effect on the traffic flows is predicted.

No potential constraints have been identified for general construction traffic along the A406 or A10.

No consultation with Transport for London or Haringey London Borough Council has been undertaken at this time, though detailed consultation will be undertaken at a later stage if required. It is possible that during this process, additional issues may be identified on the road network that will need to be considered.