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Outline Construction Logistics Plan

Land to the Rear of Larkswood

Larkswood Developments LLP

March 2023

Project Information

Title	Outline Construction Logistics Plan
Job Code	91714
Sector	Engineering
Report	CLP
Client	Larkswood Developments LLP
Revision	A
Status	Final
Date of Issue	15th March 2023

Revision History

Revision	Date	Author	Reviewer	Approver	Status
A	15th March 2023	LS	LS	AC	Final

Contact Details

Development name:	New Road, Chingford, Waltham Forest, E4
Landowner:	Larkswood Developments LLP, Lindhill House, Knapp Close, Letchworth Garden City, SG6 1AQ
Site address:	New Road, Chingford, Waltham Forest, E4
Site postcode:	E4
Existing site use:	The site is currently an unused site, which was formerly a landscape contractors' yard. The site is situated to the rear of Larkswood woodland area. The easiest way to access the site is from New Road to the north. The site lies immediately north and west of Larkswood woodland area, as a result the woodland forms the boundary to the south and east of the development. New Road forms the northern boundary and to the west lies the Council owned land, which consists of Larkswood Leisure Centre, a health centre, fitness centre, food store, nursery and restaurant.
Summary of works:	The proposed development is for 72no. flats in two blocks/buildings - Block A and Block B. The application only concerns the landscape contractors' yard off New Road. The access to the development will be from New Road. The development will be car-free apart from three disabled bays on site.

Construction Logistics Manager:	Richard Moore
Phone number:	07552733007
Email:	richard.moore@linfieldconstruction.co.uk
Logistics provider contact name:	Richard Moore
Phone number:	07552733007
Email:	richard.moore@linfieldconstruction.co.uk

CLP Produced by:

Name	Signature	Date
Louise Smith (Aval Consulting Group Limited)	Louise Smith	15th March 2023
	CLP Accreditation date:	

CLP reviewed by:

Name	Signature	Date
Louise Smith and Ayan Chakravartty (Aval Consulting Group Limited)	Louise Smith and Ayan Chakravartty	15th March 2023
	CLP Accreditation date:	

1 Introduction

1.1 Overview

AVAL Consulting Group Limited (ACGL) has been commissioned by Larkswood Development LLP (the 'Client') to provide the Outline Construction Logistics Plan for the residential development at New Road, Chingford, which is on land to the rear of Larkswood. This is to accompany/support the Planning Approval to the Local Authority (London Borough of Waltham Forest (LBWF)).

Waltham Forest Highways has adopted the use of Construction Logistics Plans (CLPs) following the guidance published by Transport for London (TfL) and CLOCS (Construction Logistics and Community Safety). The Council requires an Outline CLP to be submitted with a planning application for approval prior to planning permission.

1.2 CLP Objectives

This Construction Logistics Plan (CLP) sets out the management of traffic during the construction period for the development, which is anticipated to start in May 2023 and last for approximately 3 years until June 2026. It also encourages modal shift and seeks to reduce overall vehicle numbers. A full assessment of all phases of construction should be included in outline and include:

- The amount of construction traffic generated
- The routes the construction vehicles will use
- The impact on relevant Community Considerations
- Any traffic management that will be in place
- Any policies which encourage modal shift

It also seeks to provide a robust construction strategy that will minimise the potential for disruption to local residents, businesses, members of the public and visitors to the site, as well as other users of New Road.

The key objectives are:

- Lower emissions;
- Enhance safety – improved vehicle and road user safety; and
- Reduce congestion – reduced trips overall, especially in peak periods.

To support the realisation of these objectives, several sub-objectives have been agreed and include:

- Encouraging construction workers to travel to the site by public transport/non-car modes of transport;

- Promote smarter operations that reduce the need for construction traffic or that reduce or eliminate trips in peak periods;
- Encouraging greater use of sustainable freight modes;
- Encouraging the use of greener vehicles;
- Managing the on-going development and delivery of the CLP with construction contractors;
- Communication of site delivery and servicing facilities to workers and suppliers; and
- Encouraging the most efficient use of construction freight vehicles.

The contents of the CLP will be complied with, unless otherwise agreed with the Local Authority (LBWF). The CLP is a live document that will be updated as necessary to include relevant information and address issues that may be identified through consultation with local stakeholders as the project progresses and the main contractor once this person is appointed. If the document is updated, it shall be approved by the Local Authority.

1.3 Site Context

The site is currently an unused site, which was formerly a landscape contractors' yard. The site is situated to the rear of Larkswood woodland area. The easiest way to access the site is from New Road to the north.

The site lies immediately north and west of Larkswood woodland area, as a result the woodland forms the boundary to the south and east of the development. New Road forms the northern boundary and to the west lies the Council owned land, which consists of Larkswood Leisure Centre, a health centre, fitness centre, food store, nursery and restaurant.

The approximate National Grid Reference for the site is E238230, N192729.

The local area is mixed-use in nature.

The nearest major road (A406) is only a 6-minute drive from the site. The A406 North Circular Road directly leads onto the M1 when travelling westbound and towards the M11 when travelling eastbound.

Several other main roads include the A112, which connects the site to the A406 and the M25 in the north. Woodford New Road/Epping New Road runs in a north-south direction and connects the site to Woodford, Walthamstow and the A12 in the south and Epping Forest and Epping in the north.

New Road itself has a speed limit of 30mph past the site and the road is wide.

The Site Location Plan is provided in Figure 1.1 and other location plans are provided in Appendix A. A regional site plan, local context plan and site boundary plan are provided in Section 2.2.

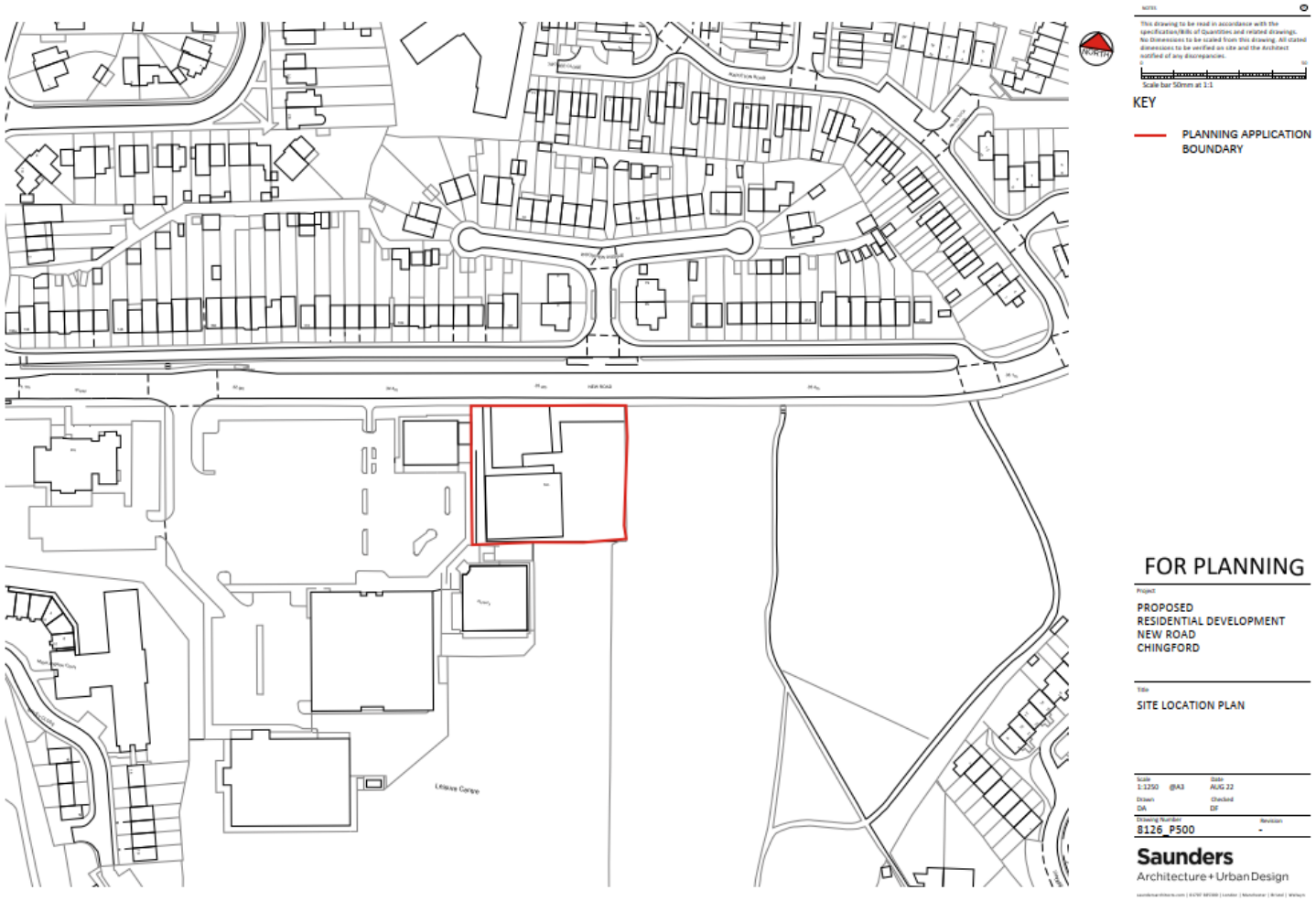

Figure 1.1 Site Location Plan (1:1250)

1.4 Development Proposal

The proposed development consists of demolition of existing buildings for residential development (Use Class C3) comprising of two buildings (Blocks A and B). Block A will have five storeys and Block B will have seven storeys. Each block will have associated pedestrian access, cycle parking, refuse stores and the site will have landscape and amenity areas.

The scheme proposes:

- Flat Block A consists of 5no. 1-bedroom flats, 7no. 2-bedroom flats and 11no. 3-bedroom flats, making a total 23 flats.
- Flat Block B consists of 18no. 1-bedroom flats and 31no. 2-bedroom dwellings, making a total 49 flats.

There will be 72no. flats in total.

The plan in Appendix B shows the proposed site plan for the development.

The main construction works operations will include:

- Refurbishment and demolition survey
- Removal of asbestos containing materials
- Crushing and reuse of brick/concrete waste
- Installation of piling mat
- Concrete piling works
- Erection and Installation of Tower Crane
- Erection of the concrete frame
- Traditional external brick works
- General internal works including first and second fix and partitioning

1.5 CLP Structure

A Table of contents and figures are provided at the front of this CLP report.

It follows the following structure:

1. Introduction
2. Context, considerations, and challenges
3. Construction programme and methodology
4. Vehicle routing and site access
5. Strategies to reduce impacts
6. Estimated vehicle movements
7. Implementing, monitoring and updating

In more detail, the CLP provides the details of the construction process, the type and size of vehicles expected to be used on-site, expected arrival times of construction vehicles and access arrangements. It considers and addresses the following:

- Working hours;
- Site Plan and Site arrangement;
- Pre-start record of conditions;
- Proposed methodology;
- Sizes and numbers of construction vehicles;
- Parking and loading arrangement of vehicles and delivery of materials and plant to the site;
- Access to the site;
- Vehicle routing to the site;
- Security hoarding;
- Provision of wheel washing facilities;
- Details of any measures designed to reduce the impact of associated traffic;
- A scheme for recycling/disposing of waste resulting from demolition and construction works;
- Measures to ensure the safety of all users of the public highway especially cyclists and pedestrians in the vicinity of the site and especially at the access;
- A commitment to liaise with other contractors in the vicinity of the site to maximise the potential for consolidation and to minimise traffic impacts;

- Avoidance of peak hours for deliveries and details of a booking system to avoid vehicles waiting on the public highway;
- All necessary traffic orders and other permissions required to allow safe access to the site to be secured and implemented prior to commencement of construction; and
- The use of operators that are members of a Freight Operator Recognition Scheme (FORS) and are FORS Silver accredited or better.

2 Context, Considerations and Challenges

2.1 Policy Context

2.1.1 National Planning Policy Framework (2021)

The principal national planning policy guidance with respect to the proposed development is the National Planning Policy Framework (NPPF). The most recent update of the NPPF was published on 20 July 2021 by the Department for Communities and Local Government (DCLG). This guidance sets out the Government's planning policies for England and how they are expected to be applied. Three dimensions to sustainable development have been identified in the NPPF: economic, social, and environmental.

The proposed development complies with guidance and requirements set out in this Revised NPPF (Department for Communities and Local Government, 2021), which has replaced the original NPPF document of 27 March 2012.

The NPPF outlines the Government's planning policies for England and how they are expected to be applied. This has a "presumption in favour of sustainable development" and includes the following principles of relevance to this site:

- To drive and support economic development;
- To seek to secure high quality design; and
- Manage growth by making full use of public transport, walking and cycling and focusing development in locations which are or can be made sustainable.

The policy suggests that plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable modes can be maximised. Development should be located and designed where practical to achieve the following:

- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians; and
- Consider the needs of disabled people by all modes of transport.

The policy document also recommends that facilities such as shops should be within a short walking distance of most properties, which is the case with this development.

2.1.2 Adopted London Plan (March 2021)

The London Plan sets out the integrated economic, environment, transport and social framework for the development of London over the next 20 – 25 years. The London Plan was adopted in January 2011, and has subsequently been revised a number of times, with a recent version prior to this being the ItP Draft London Plan (Dec 2019) and then the Publication London Plan (Dec 2020).

It is, however, the most up-to-date London Plan (March 2021) that has been referred to here. Commercial parking standards, cycle parking standards, public realm and accessibility policies relevant to this application have all been drawn from this version of the London Plan.

Specific transport policies are described in Chapter 6 of the London Plan with parking policies discussed in Sections 6.1 and 6.2. Without reproducing the detailed content of each policy, integrating transport and development is the central theme, with an aspiration to encourage development that reduces the need to travel, especially by car, and locating developments that generate high levels of trips at locations with either current or committed high levels of accessibility to public transport, cycling and pedestrian networks.

The London Plan identifies that development proposals should support sustainable travel through the inclusion of appropriate cycle parking and facilities, high-quality pedestrian environments and details car parking standards for various forms of land use.

2.1.3 The Mayor's Transport Strategy

The Mayor's Transport Strategy 2018 are a set of plans set out by the Mayor of London to transform the streets of London, to improve public transports and to create opportunities for new homes and jobs. The main method of achieving this goal is to encourage more people to walk, cycle and use public transport.

Policy 21 highlights the principles of Good Growth in relation to new homes and jobs:

"The Mayor, through TfL and the boroughs, and working with stakeholders, will ensure that new homes and jobs in London are delivered in line with the transport principles of Good Growth for current and future Londoners by using transport to:

a) Create high-density, mixed-use places, and
b) Unlock growth potential in underdeveloped parts of the city"

2.1.4 Vision Zero

As part of the Mayor's Transport Strategy 2018 Action Plans, the Vision Zero action plan is to "*eliminate all deaths and serious injuries on London's transport system. This plan focuses on the area where our greatest challenges lie - London's streets"*.

By 2041, all deaths and serious injuries will be eliminated from London's transport network.

The actions plan as part of the Vision Zero are as follows:

1) *Safe speeds: Encouraging speeds appropriate to the streets of a busy and populated city through the widespread introduction of new lower speed limits*
2) *Safe streets: Designing an environment that is forgiving of mistakes by transforming junctions, which see the majority of collisions, and ensuring safety is at the forefront of all design schemes*
3) *Safe vehicles: Reducing risk posed by the most dangerous vehicles by introducing a world-leading Bus Safety Standard across London's entire bus fleet and a new 'Direct Vision Standard' for Heavy Goods Vehicles*
4) *Safe behaviours: Reducing the likelihood of road users making mistakes or behaving in a way that is risky for themselves and other people through targeted enforcement, marketing campaigns, education programmes and safety training for cyclists, motorcycle and moped riders*
5) *Post-collision response: Developing systematic information sharing and learning, along with improving justice and care for the victims of traffic incidents*

2.1.5 London Borough of Waltham Forest Local Plan and Strategy

The LBWF Draft Local Plan is designed for the years 2020-2035. The Sustainable Transport and Infrastructure Policy includes all the relevant information and sub-policies regarding transport and parking.

Policy 67: Liveable Neighbourhoods for All states the main objectives for developments to be supported in terms of transport:

"Development will be supported where it contributes to the Council's objective to deliver Liveable Neighbourhoods for all residents in Waltham Forest by:

A. Contributing towards enhancing streets to meet Healthy Streets indicators across the public realm in the borough;

B. Increasing the number of trips made by walking, cycling and public transport, and improve local connections to these modes;

C. Reducing motor dominance and increase the active use of streets and public spaces;

D. Provide legible, prominent and coherent wayfinding for walking and cycling to strategic and local active travel networks, public transport hubs, amenities, schools and green spaces.

E. Being permeable for active modes of travel, and prioritise road space for cycling, walking and public transport;

F. Creating safe neighbourhood environments, including reducing road danger, improving personal security and meeting the Mayor of London's Transport Strategy objective for Vision Zero;

G. Improving air quality to create more attractive neighbourhoods for residents and visitors;

H. Improving quality and resilience of the public realm, ensuring public space is accessible for people from all walks of life;

I. Ensuring neighbourhoods have good connections to public transport".

2.2 Site Plans

The site plans are provided at three different scales.

The regional site plan in Figure 2.1 shows the local area around the site and the site in the context of main roads and key infrastructure. It also identifies the local community considerations i.e. local schools, churches, leisure centres etc.

Figure 2.1 Regional Site Plan (Google Maps) (Scale unknown, but the map shows the road network around the site and regional context)

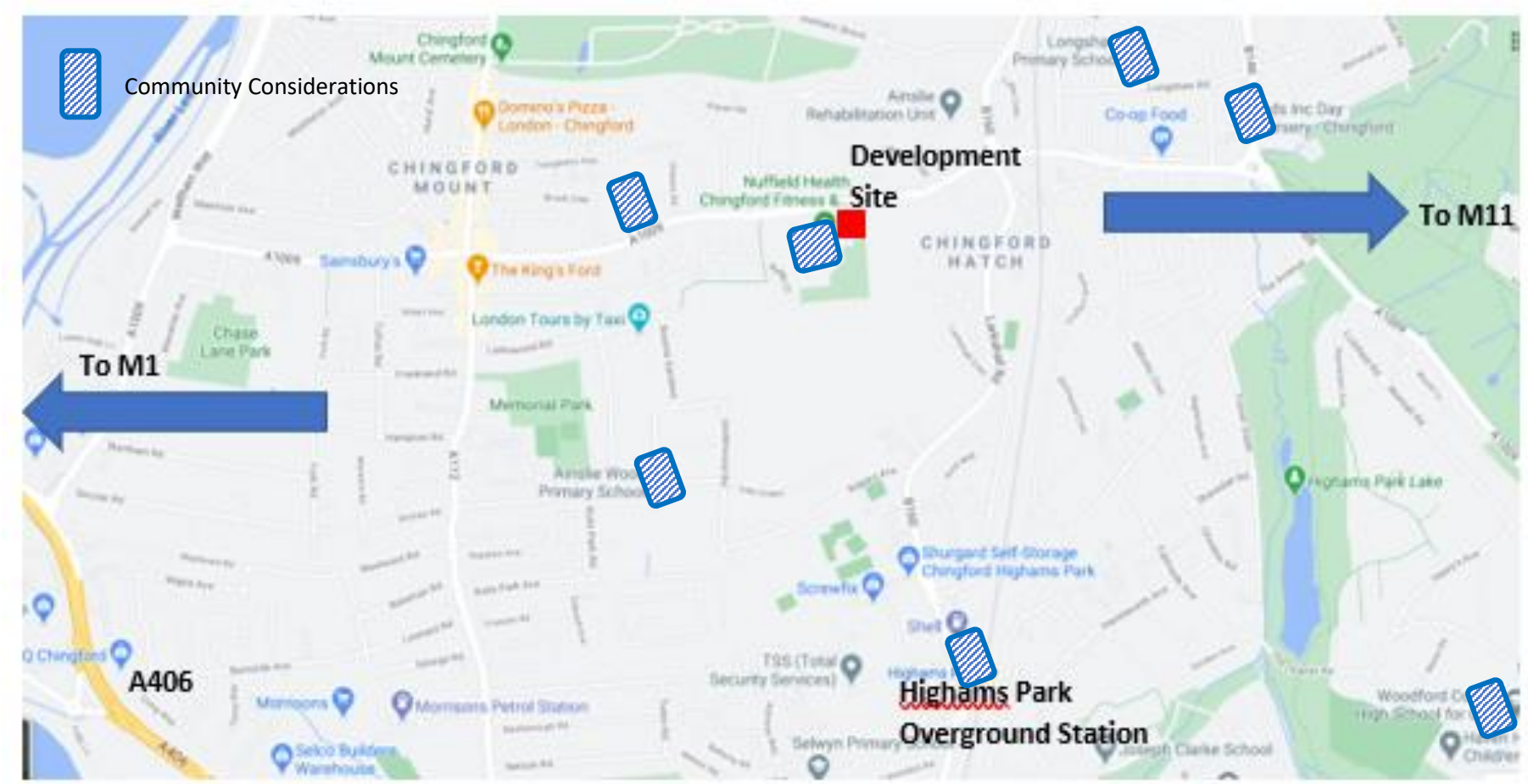

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Figure 2.2 Local Context Plan (1:2000 scale)

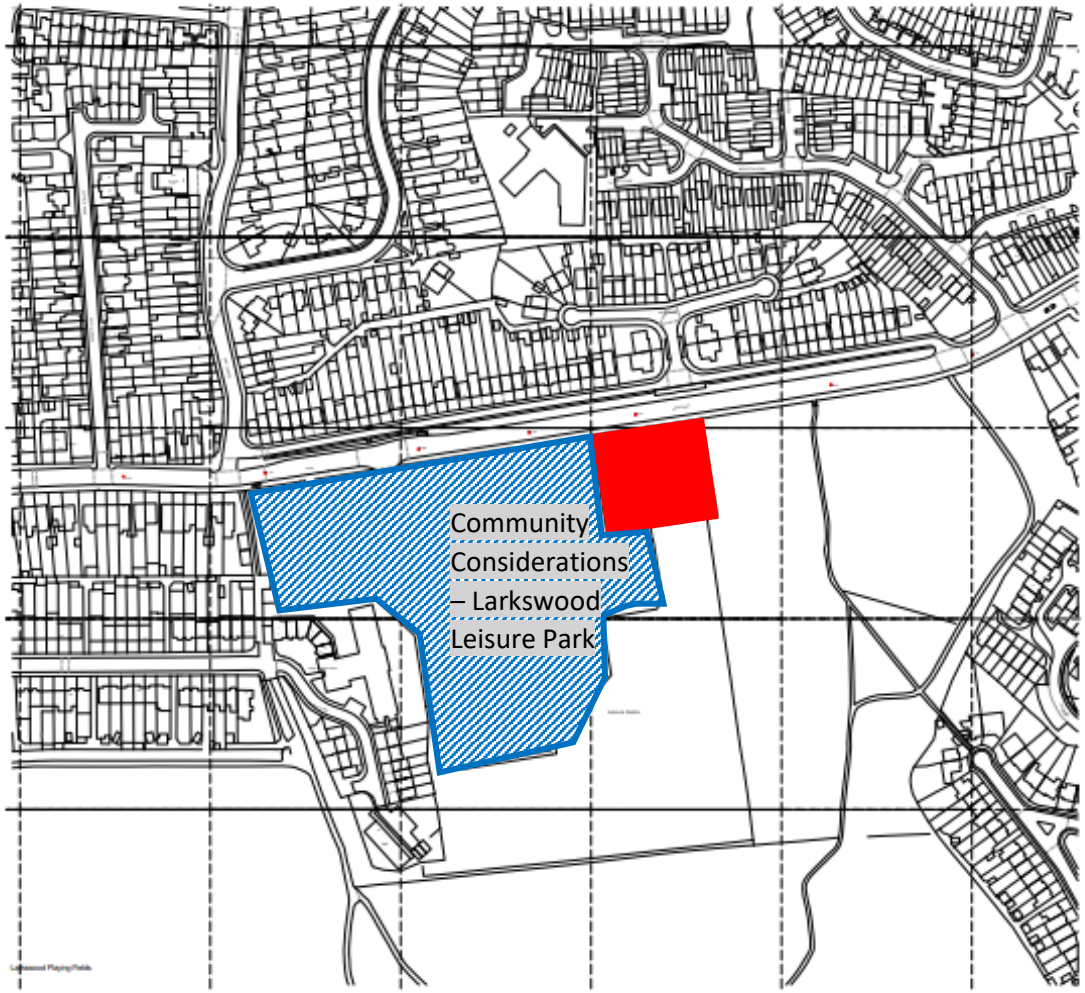
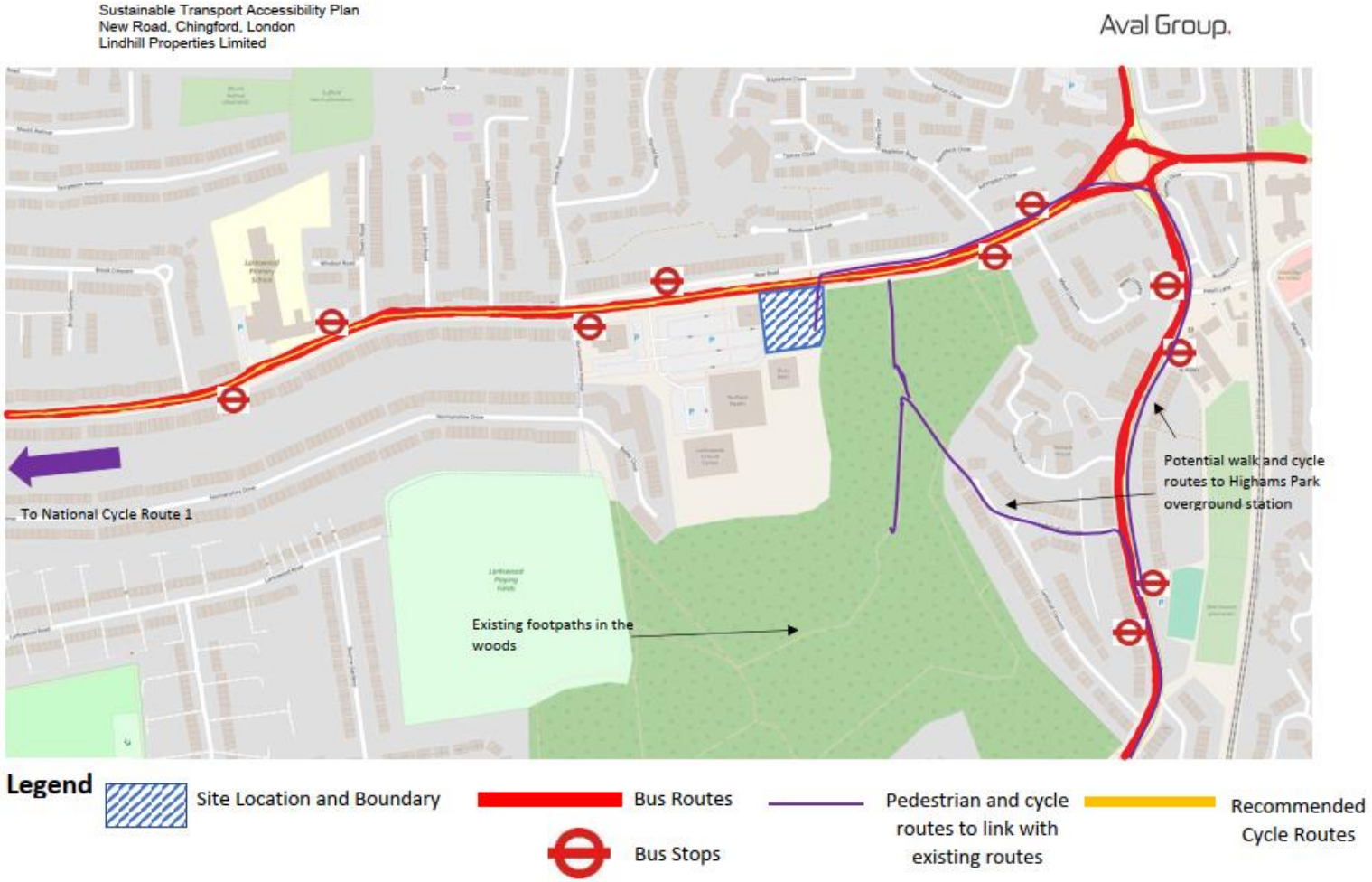


Figure 2.3 Site Boundary Plan (1:500)

Figure 2.4 Accessibility Plan (Showing local walk, cycle and bus routes)



2.3 Local Access

2.3.1 On Site

The construction work on site will need to ensure that the use of neighbouring buildings are not affected. The site is surrounded by trees/woodland, which provide the natural hoarding boundary around the site. Trees surround the site to the west in between the Council owned land, 'Chingford Leisure Park' and the site. Only a small amount of hoarding is required along New Road to protect the construction part of the site from the public and the public from the construction activity.

2.3.2 Local Road Network

The nearest major road (A406) is only a 6-minute drive from the site. The A406 North Circular Road directly leads onto the M1 when travelling westbound and towards the M11 when travelling eastbound.

Several other main roads include the A112, which connects the site to the A406 and the M25 in the north. Woodford New Road/Epping New Road runs in a north-south direction and connects the site to Woodford, Walthamstow and the A12 in the south and Epping Forest and Epping in the north.

New Road itself has a speed limit of 30mph past the site and the road is wide.

2.3.3 Local Public Transport

The Public Transport Accessibility Level (PTAL) for the site is 2, which means the site has a poor level of public transport accessibility.

Despite the poor public transport rating, the site is located within a few minutes' walk of a couple of bus stops which serve several local bus routes.

The closest bus stops are located on New Road close to the junction with Mapleton Road to the east of the site access and on New Road close to the junction of Grove Road to the west of the site. These bus stops are located within 150 yards and a 2-minute walk of the site. The bus stop near Mapleton Road serves westbound buses, whereas the bus stop near Grove Road serves eastbound buses. Both bus stops provide local bus routes 357, 444, 657 and W16. These routes are operated by Transport for London (TfL). Buses arrive between every 10 to 20 minutes and travel towards Edmonton or Walthamstow when travelling west and towards Chingford Hatch, Chingford Rail Station or Highams Park Overground Station when travelling east from the site.

Highams Park Overground Station is located approximately 1 mile south of the site, which corresponds to approximately 4 minutes' driving time, 6 minutes' cycling time or 20 minutes' walking time. The station is also on a bus route. Northbound trains can only travel as far as Chingford Rail Station, while southbound travellers can travel to Walthamstow Central Rail Station to connect with the Victoria Line on the London Underground, or continue onwards to London Liverpool Street Rail Station.

Other nearby stations include Meridian Water Railway Station, which is situated 2.5 miles to the west of the site. The station is accessible within a 15-minute cycle ride of

the site access on New Road or a 14 minutes' drive. Buses also serve this station. The railway station is served by Great Anglia trains and these travel to destinations such as Stratford, Bishops Stortford and Hereford East.

Woodford Underground Station is on the Central Line and this station is located approximately 2.5 miles to the south-east of the site. It can be reached within a 13 minutes' cycle ride or an 8 minute drive. This station can be reached within an 8-minute drive, 13 minutes' cycle ride or by bus.

In summary, despite the PTAL rating, the site is considered to benefit from a well-connected multi-modal transport network with two bus stops a couple of minutes' walk away on New Road, an overground station within a short walk or cycle ride and an underground station and railway station within a short cycle ride, bus journey or car journey away.

2.3.4 Local Cycling

New Road does not have a dedicated cycle lane. However, cyclists can use the road safely as the speed limit of New Road is 30mph and the road is wide in both directions.

Cycling to the nearby overground station at Highams Park and Meridian Water railway station is easy and convenient from the site.

2.4 Community Considerations

2.4.1 Schools

The closest school is Larkswood Primary Academy on New Road, which is just a 6 minutes' walk. The school is unlikely to be impacted by the construction works, as the works will happen on site rather than on New Road.

2.4.2 Shops (and Chingford Leisure Park)

The closest shop is Tesco Express next door at Chingford Leisure Park, which also contains a leisure centre and medical centre. It is only a few minutes' walk away. The direct surrounding area is unlikely to be impacted, however, as mentioned above, as the construction works will only occur on site. Hoarding around the site of development will protect the neighbouring site, neighbouring buildings and footways from the construction activity as much as possible.

2.4.3 Hospitals

The nearest hospital is the North Middlesex University Hospital, which is situated within a 12-minutes' drive from the site on Sterling Way. Due to the access to the site, there will be no disruption from the construction works on site.

2.4.4 Local Residential Properties

The nearest residential properties are situated on New Road opposite the site. The properties are unlikely to be impacted by the construction works, as the works will happen on site rather than on New Road.

Prior to the commencement of works, all residents will be notified by letter drop of the work commencing. Monthly letter drops may be required to keep local residents of work progress and activities that are ongoing. Linfield Construction Ltd will issue monthly newsletters to keep residents informed of current progress.

The letter will also introduce the company and provide contact telephone numbers for the residents use in case of emergency, to discuss concerns or issues surrounding access and security arrangements.

3 Construction Programme and Methodology

3.1 Programme / Phasing

Construction is anticipated to start in May 2023 and last for approximately 3 years until June 2026. An outline construction programme/schedule has been prepared by Larkswood Developments LLP and is provided in Figure 3.1 below.

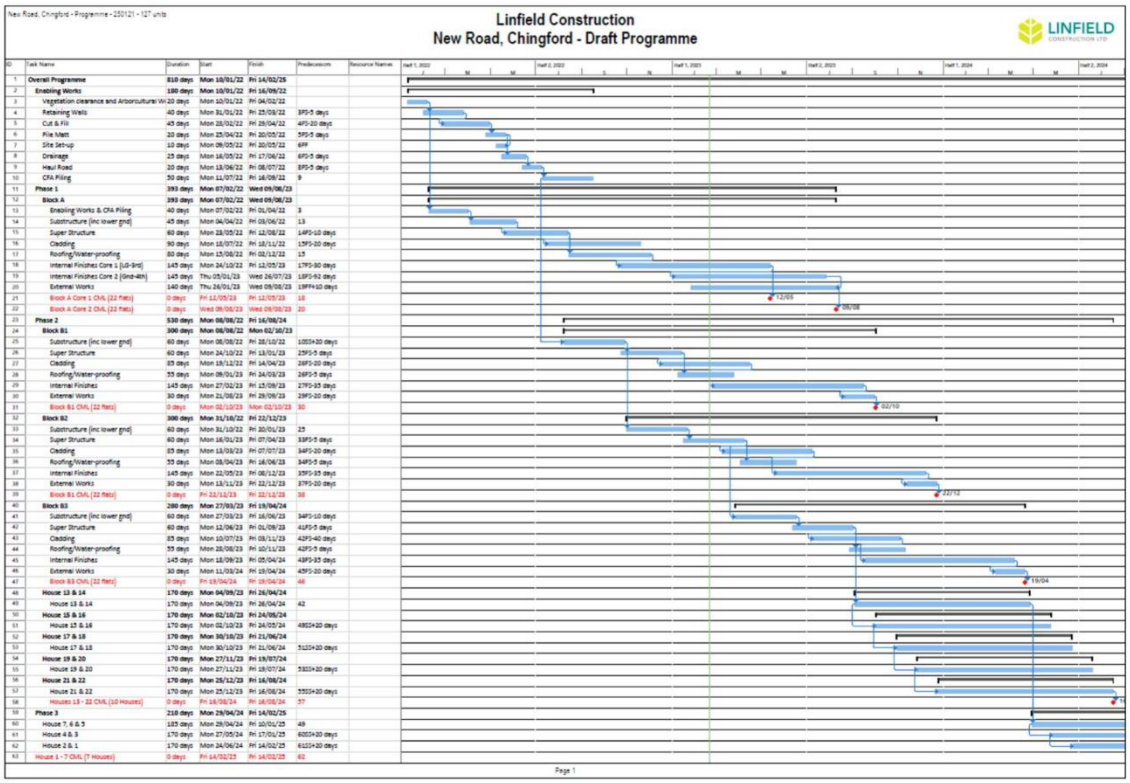
Figure 3.1 Outline Construction Programme

CONSTRUCTION PROGRAMME OVERVIEW

Construction phase	Start	End
Site setup and demolition	May-2023	Sept-2023
Basement excavation and piling	Sept-2023	Dec-2023
Sub-structure	Jan-2024	March-2024
Super-structure	March-2024	March-2026
Cladding	July-2024	April 2026
Fit-out, testing and commissioning	Sept-2024	June-2026

Figure 3.2 below shows the timetable in outline. This is to be updated by the Contractor 'Linfield Construction' following planning approval. This will be a Condition of Planning and in the Detailed CLP report.

Figure 3.2 Outline Construction Timetable (To be updated)



3.2 Construction Programme Phases

3.2.1 Site Set Up and Demolition

There will be minimal demolition, given that the site is vacant, but site set up is expected to take a few months, due to the trees and vegetation on site. A generator is not expected to be required, as the site already benefits from having an electricity supply.

A portaloo for site labourers will be provided, and a small site office will be set up for welfare provisions, which will include running water and a place of shelter if needed. Make safe all electrics, water and gas supplies.

The site will be secured using temporary 2.4m hoarding around the front of the site with a gate onto New Road, allowing for pedestrian and vehicle access. Security measures and the required safety regulations will be fully displayed.

Other factors to consider are:

- Check site for any utilities running through the site and liaise with utility companies if required;
- The contractor will ensure that the footpath/adjoining highway is clean at all times;
- The use of a traffic marshal will be in place during all periods of operation at the site to assist pedestrian and cyclist safety. A ‘banksman’ will be on site as well, and they will be responsible for the safe movement of plant and vehicles.

3.2.2 Basement Excavation and Piling

The excavation works for foundations are expected to take a few months requiring a 1.5 tonne digger. There is no basement in the proposed scheme and piles are not required following confirmation of the structural design. The construction team will be digging down to level the site and strip foundations dug to the required depth set out in the structural design (750mm) – further details can be provided on request.

Muck will be removed using grab lorries, and it is estimated this will require up to ten grab lorries at different times. The contractor will arrange for these lorries to arrive outside of peak travel hours.

3.2.3 Sub-Structure

Vehicle movements to and from the site will only operate during certain times to minimise their impact on the local highway network and on residents. To avoid adding to local congestion, all construction vehicle access and egress from the site will take place between 09.30am and 3.30pm (outside of network peak hours);

Concrete will be supplied to the site via a small delivery vehicle (no larger than a 7.5ft Panel Van). Concrete will then be mixed on-site for use.

The substructure works will take a few months needing predominantly a cement mixer and steel reinforcement. Due to the size of the development, concrete lorries are required to travel to the site during this phase.

Once the strip foundations have been dug the required depth, drainage pipes will be installed prior to the concrete being poured. Metal reinforcement will be added as specified by the structural engineer, and then concrete will be mixed and poured. The concrete will be watered and left to full dry.

This phase will also include the pouring of a concrete plinth. For this part, a cement mixer will be used. The plinth will be poured into panels which will be lifted into place.

A material store area will be maintained within the site near New Road. This may need to move within the site during construction works.

As and when necessary, New Road will be washed to keep it clean.

3.2.4 Super-Structure

The superstructure and brickwork cladding is anticipated to take up to two years, as the flats will be built in different phases.

The structure will be brick and block, and scaffolding will be erected. The structure will be block work, with cavity wall construction with a brick skin. The floors and roof will be constructed using timber joists, as specified by the structural engineer. The roof will be constructed using a GRP (glass reinforced plastic). All windows will be of a size that can be lifted into place and will not require any machinery to assist with this phase. All steel lintels will be of a standard specification and can be lifted into place without the need for a crane.

During the superstructure phase, vehicles no larger than a 7.5 tonne panel van will need to access the site.

The arrival of vans will be organised during the middle of the day outside of peak traffic periods and when local residents are likely to not be at home.

Measures will be incorporated to protect New Road using barriers / signage and statutory services equipment as appropriate.

A trained traffic marshal would be employed to ensure that all vehicle and pedestrian activity in the vicinity of the site is safe and satisfactory.

3.2.5 Cladding

The cladding will all be brickwork and be completed as described in the above super structure section.

3.2.6 Fit-Out, Testing and Commissioning

Once the building is watertight, first fix services will happen, including gas, water and electrics.

A small number of additional contractors will need access to the site during cladding, fit out and testing.

Contractors will arrive in smaller (less than 3.5t) vehicles to service the site.

3.3 Hours of Operation

It is proposed that the hours of operation will be between:

- Weekdays: [08:00–17:00];
- Saturday: [08:00 – 13:00]; and
- Sunday: [No noisy activities on-site]

Deliveries will only occur between 9.30am-3.30pm.

In certain circumstances, it is anticipated that there will be a requirement for vehicles to arrive and depart outside of usual construction hours to allow specialist construction activities to be undertaken. Any special dispensation with regards to out of hour's vehicle activity will require prior agreement with the local authority.

There will be no working on Sundays unless there is a requirement for emergency works or abnormal deliveries. These would be agreed in advance with the highway authority.

All vehicle activity will be scheduled and undertaken in accordance with LBWF guidelines. Vehicle activity will primarily take place outside of peak periods in order to minimise disruption to the local road network.

3.4 Site Arrangement

The site will be secured with a security hoarding to all exposed boundaries, which for this site is along New Road only, where there is an interface with / reliance on a public road. Only a small amount of hoarding is required around the proposed development to protect the safety of pedestrians and the public.

The hoarding will be provided in line with LBWF regulations.

Construction office and staff welfare facilities will be provided on site where possible.

Plant and materials will be stored on-site and vehicles will access the site from New Road, where a gate/door will be provided in the hoarding. This will be their only point of access into the site. Vehicles will drive from New Road into the site to unload materials and collect waste and materials. The storage of all materials will be on site.

A banksman will be employed to assist vehicles onto during the duration of the demolition/site clearance & ground works.

Visitors to the site will have to park off-site if they arrive by car.

Wheel washing will be required before exiting the site onto New Road.

Excavation works will be undertaken on-site, and the removal of material is expected to be undertaken on-site.

3.5 Utility Connections

Should the development require any new utility connections, the project manager will make contact with the relevant utility companies in order to co-ordinate any scheduled work with the highway authority.

3.6 Recycling

The removal of material is expected to be undertaken on-site. Material will be transferred directly into vehicles on site.

Where possible, segregation of recyclable and non-recyclable material will be employed for all waste generated throughout the construction process.

Initially, all waste materials will be deposited into containers held on site. All site waste will be collected by a licensed waste carrier, who will enter the site briefly to collect. The waste will be taken to a registered waste transfer station for sorting and recycling, and re-use.

A Site Waste Management Plan (SWMP) will be implemented if necessary to detail the disposal and management procedures relevant to the demolition and construction phases. The SWMP will seek to minimise and reduce waste production.

Plant and materials will be stored on-site, there is not expected to be a requirement to make use of the public highway for storage purposes. All loading/unloading and material storage will be undertaken on-site.

3.7 Abnormal Roads

If short term road closures are required in order to undertake any element of the works, then the appropriate consents and licenses will be obtained. If required, road closures will be planned in advance, in accordance with LBWF and in compliance with prescribed notice periods.

3.8 Control of Dirt and Dust

The objective is to ensure footways and carriageways adjacent to the site are kept clean at all times. The following measures will be implemented:

- All HGVs removing demolition spoil and soil will be sheeted over before leaving the site;
- Wheel washing will be carried out where necessary;
- The Project Manager will ensure that the perimeter of the site is patrolled twice a day to ensure that the footways and other areas of the building are kept clear of any construction debris.
- Road sweeping to clean the site hard standing, and any mud or debris deposited by site vehicles on roads or footpaths in the vicinity of the site;
- Sufficient bins and waste facilities.
- Litter picking facility for un-attributable materials; and

- Facilities to minimise the formation and spread of dust by continuous fine water spray.

3.9 Noise

Noise and Vibration caused by site activities will be controlled as far as is reasonably practicable so that surrounding receptors are protected from excessive levels arising from the construction process.

All hand operated tools and equipment shall be effectively silenced to industry standards and will bear the manufacturer's guaranteed maximum sound level generated. The recommendations made in BS 5228-1: 2009 "Code of Practice for Noise and Vibration control on Construction and Open Sites" will be applied at the site.

The Contractor will work under the guidelines set out in the legislation below:

- Public Health Act 1961
- Health & Safety at Work act 1974
- Control of Pollution Act 1974
- Environmental Protection Act 1990
- The Noise at Work regulations 2005
- British Standard 5228

The Contractor will aim to keep noise levels to a minimum. This will be carried out by:

- Ensuring all plant is fitted with the correct and working exhaust mufflers and noise suppression kits.
- Changing methods and processes to reduce noise levels where possible.
- Position plant as far away from existing residential property as physically possible.

4 Vehicle Routing and Site Access

4.1 Access Arrangements for Vehicles

All personnel responsible for delivering material to and / or transporting material away from the site will be advised in writing of the proposed and agreed vehicular access route(s).

Vehicle arrivals and departures will be scheduled and staggered to reduce the potential for unnecessary delay and congestion at the site and to avoid conflict on New Road.

The scheduling of materials, deliveries and waste collection will be managed by the Construction Manager / Contractor 'Linfield Construction Ltd'. Deliveries and collections are expected to be arranged on a 'just in time' basis to avoid more than one construction vehicle seeking access to the site at any time. Suppliers will be given instructions asking the vehicle driver to call ahead to ensure that the site is ready to receive a vehicle. In addition, verbal briefings of the access route will be provided to all suppliers, contractors and visitors prior to them undertaking a journey.

A Logistics team will be based on site, led by a head logistics manager to oversee the delivery and movement of construction material and vehicles. This CLP, together with a Traffic Management Plan (TMP) will be referenced by the logistics team and will be systematically reviewed with revisions as required.

The TMP will be communicated to the full supply chain used to deliver materials to the site to ensure that the requirements of the CLP and TMP are adhered to. In that regard, all construction traffic over 3.5t in weight delivering goods to the site must comply with the Construction Logistics and Cycle Safety initiative (CLOCS) or Fleet Operator Recognition Scheme (FORS) at silver level.

4.2 Proposed Vehicle Routes

The Contractor will liaise with LBWF with the aim of agreeing vehicular routes to and from the site for vehicles during the construction stages. Details of the agreed routes will be provided to drivers, which will need to be adhered to at all times unless otherwise instructed by the Council. The objective of agreeing approach / exit routes is to minimise the impact on residential streets and sensitive locations which are nearby, with reliance on the strategic road network as much as it is possible.

The local plan showing the local roads to be used for the last stage of a journey and roads that are off-limits to construction traffic is shown in Figure 4.1. The vehicle routes proposed during construction are shown in Figure 4.2. These are currently considered to be the most appropriate and suitable for larger vehicles and seek to reduce and minimise disruption to local road users, whilst providing flexibility for the suppliers and construction vehicles.

Figure 4.1 Local Plan 1:2000 scale – Local access roads

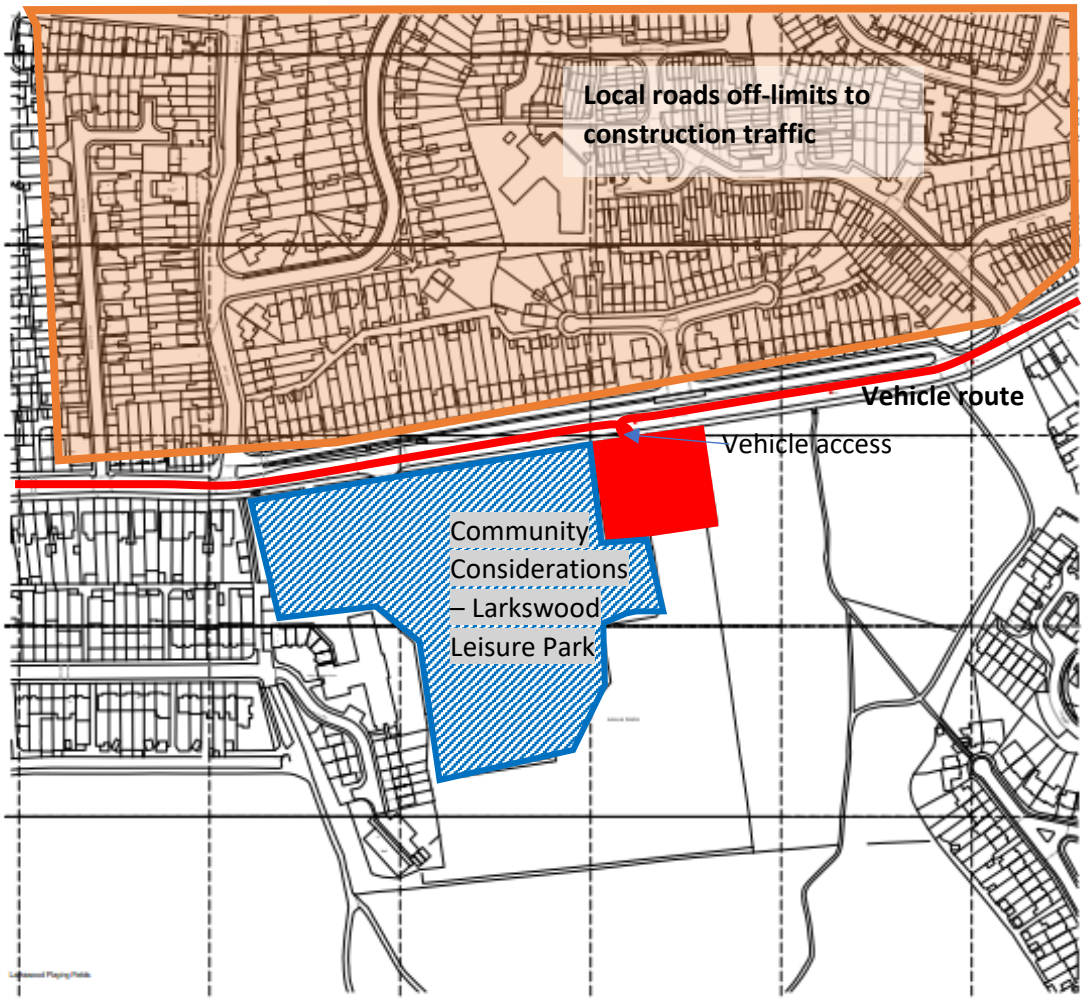
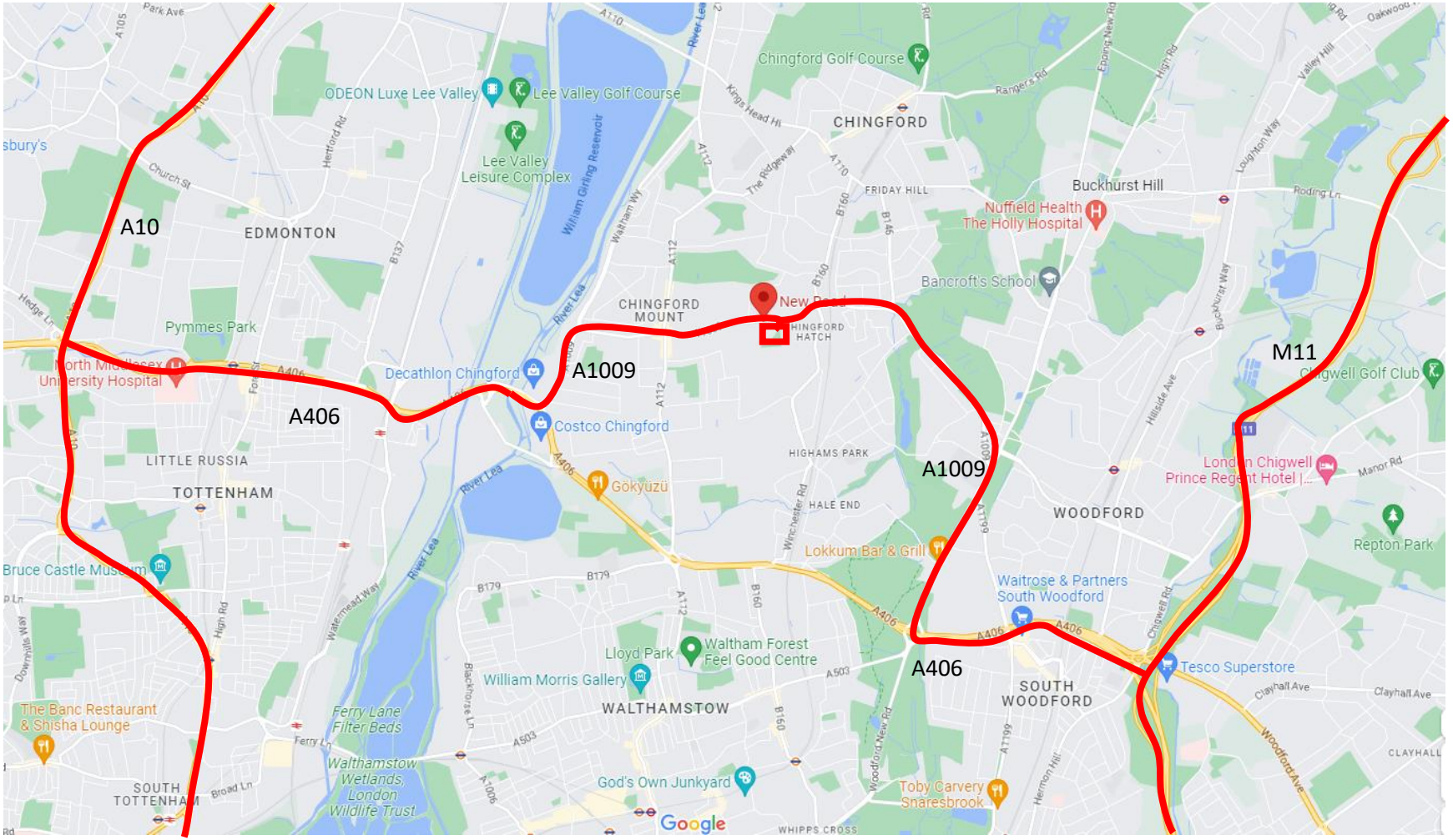


Figure 4.2 Proposed Arrival / Departure Routes (Source: Google Maps)



All construction vehicle arrivals will be managed at the site to ensure appropriate safety and traffic management measures are adhered to.

There will be a pre-start record of site conditions on the adjoining public highway (New Road), which will be undertaken with Waltham Forest Borough Highways. This will involve a meeting and site visit from Linfield Construction Ltd with Highways to assess the current road conditions, so they can note if anything is negatively affected from the construction vehicles after the site has been built. The Contractor will be responsible for the making good of any damage caused by the works once the construction process is complete.

4.3 Loading Arrangements

Loading and unloading of material exported or imported to the site and rubbish removal during the construction process is expected to be undertaken within the site. All materials will be stored on site with security provisions put in place. Construction vehicles will come into the site through the access in the hoarding at the front of the site, accessed from New Road. No construction vehicles will park on New Road and no material will be offloaded onto this road or public footway either.

All site operatives and visitors will be encouraged to travel to and from the site by public transport, however, in the event operatives are required to bring vehicles to site, operatives will be expected to unload any materials or equipment on site and then either park on site or on the road. There will be security provisions set in place for the safety of the materials at the proposed development site.

4.4 Public Highway

The Contractor will agree a schedule which details the condition of the public highway in the immediate vicinity of the site with the Highway Authority prior to works commencing. The Contractor will be responsible for the making good of any damage caused by the works once the construction process is complete.

4.5 Road Safety

A dedicated road marshal will supervise all arrivals and departures of construction traffic. All contractors and suppliers will be required to achieve silver accreditation of FORS (Fleet Operator Recognition Scheme) where applicable and to be signatories of CLOCS (Standard for Construction Logistics: Managing Work Related Road Risk).

4.6 Pedestrian and Cyclist Safety

Construction traffic poses a potential risk to pedestrian and cyclist safety. The use of banksmen during all periods of operation at the site will assist pedestrian and cyclist safety.

Only a small amount of hoarding is required around the proposed development at the front to protect the safety of pedestrians and the public.

Safety at the access will be considered, as vehicles will enter and leave the site for the construction works. Signs will be installed on New Road to inform the public / drivers / pedestrians / cyclists about construction works / construction vehicles on site. The construction vehicle drivers and other HGV drivers in relation to this site will need to be aware of other vehicles and cyclists on New Road.

A banksmen will be employed to assist vehicles to drive onto site.

5 Strategies to Reduce Impacts

5.1 Overview

This section describes measures that can be implemented to ensure this CLP is effective in achieving the aims of reducing environmental impact, road risk, congestion and cost.

Planned measures are specific techniques that are agreed through the planning process. Planned measures need to be SMART (Specific, Measurable, Agreed, Realistic, Timely), easily interpreted, implemented and monitored. The detail of them is defined prior to starting construction activities.

The measures are categorised as follows:

- Committed - indicates a measure that shall be implemented as part of the CLP, secured by planning condition or, where applicable, through the Section 106 agreement. These measures shall be included in any tendering documents for the contract to build the development. If the developer's (QMUL's) contractors do not comply with these requirements, it will be classified as a material breach of their contract and could lead to them being refused access to the site. It is the developer's responsibility to ensure their requirements are part of the main contractor and subcontractor contracts. The main contractor is responsible for ensuring that all sub- contractors conform to these contractual requirements.
- Proposed – indicates a measure that is feasible and shall be studied further to determine its practicality. If a measure is not feasible, the CLP must contain justification and evidence as to why it has been rejected. Proposed measures should be discussed with potential contractors during the procurement stage with a view to including them in the contract and agreeing to them in the Detailed final CLP (the version following this).
- Considered – indicates a measure that is not currently relevant but may be in the future. These measures should be proposed if suitable.

5.2 Planned Measures

The measures considered suitable for this site are shown in Table 5.1. This development is considered to be a small to medium sized site and therefore low/medium impact site.

Table 5.1 Measures Checklist

Measures	Committed	Proposed	Considered
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out of peak deliveries		X	
Re-timing for out of hours deliveries		X	
Use of holding areas and vehicle call off areas		X	
Re-use of material on site		X	
Smart procurement		X	
Collaboration with other sites in the area	X		
Vehicle Choice			X
Use of Logistics and Consolidation Centres		X	
Freight by Water			X
Freight by Rail			X
DfMA and off-site manufacture		X	
Prepare a Staff Travel Plan			X

The measures shown in Table 5.1 are what the Contractor is prepared to commit to during the construction period.

Collaboration will take place with other sites wherever possible. But this depends on what building works of similar size are being carried out at a similar time.

Site workers will be advised that they should not travel to site by car, and should only use public transport options, of which there are many to choose from.

5.3 Measures influencing construction vehicles and deliveries

5.3.1 Safety and Environmental Standards and Programmes

The contractor is committed to the safety and environmental standards and programmes.

5.3.2 Vehicle Call-Up Procedure, Scheduling and Designated Routes

The following vehicle call-up procedures will be in place at the development;

- Deliveries will be given set times to arrive, between 9:30am and 3:30pm;
- Delivery instructions will be sent to all suppliers and contractors;
- Trained site staff will assist when delivery vehicles are visiting the site;
- The site telephone number will be given to suppliers who must confirm site arrival at least 20 minutes prior to arrival and only to approach the site once confirmation that site is clear is received; and
- Vehicles will arrive just in time and must not stop and wait on the surrounding roads.
- No deliveries will be accepted out of site operational hours.

5.3.3 Measures Influencing Construction Vehicles and Deliveries

- All vehicles proposed to be used in the construction including sub-contractors will be FORS Silver accredited from the start of construction.
- The site manager will have responsibility for supervising, controlling and monitoring vehicle movements to / from the site.
- Coordination of transport / deliveries and arrivals will be supervised by the site manager to ensure that the loading/collection area on site is clear of vehicles and materials before any subsequent lorry arrives.
- Contractor workers will as far as possible be encouraged to arrive and leave the site by public transport.

5.3.4 Other Material Considerations

In order to ensure the effective and safe management of demolition and construction related vehicles throughout the build programme, the contractor will hire a suitable number of trained and designated banksmen/traffic marshals. Disruption to free-flowing traffic on New Road has been minimised as much as possible, therefore any safety implications for adjacent highway users will be minimal.

Banksmen and traffic marshals will be LANTRA or similarly qualified to carry out the traffic management procedures required during the works.

The contractor and any sub-contractors or other suppliers sending vehicles to and from the site will be silver members of the Fleet Operator Recognition Scheme (FORS). This scheme and the Considerate Constructors Scheme are discussed in Chapter 7.

5.3.5 Retiming for out of peak deliveries / out of hours

Deliveries will be scheduled for outside of peak times, from between 09.30am and 3.30pm. Out of hours deliveries is not appropriate due to the neighbouring residential properties.

5.3.6 Use of Holding and Vehicle Call Off Areas

This is not appropriate due to the small number of deliveries taking place.

5.3.7 Use Of Logistics and Consolidation Centres

This is not appropriate due to the small number of deliveries taking place.

5.4 Measures to Encourage Sustainable Freight

Not applicable (site, consolidation centre or holding areas are not within 100m of foreshore of navigational waterway).

Freight by Rail – not feasible due to location.

5.5 Material Procurement Measures

Demolition and construction waste (although minimal) will be controlled by a Waste & Recycling Action Plan, with site segregation of waste and maximum off-site recycling.

Demolition rubble will be stored for re-use where possible.

5.6 Other Measures

5.6.1 Collaboration with Other Sites

Collaboration will take place with other sites wherever possible. But this depends on what building works of similar size are being carried out at a similar time.

5.6.2 Staff Travel Plan

Site workers will be advised that they should not travel to site by car, and should only use public transport options, of which there are many to choose from.

6 Estimated Vehicle Movements

6.1 Vehicle Types and Number of Movements

There are no anticipated restrictions to the size of heavy goods vehicles servicing the site. There appears to be no height restrictions on the highway network surrounding the site and therefore numerous types of vehicles will be used to bring materials to and from the site.

It is expected that the online Freight Journey Planner will be able to be utilised by drivers.

The main vehicle types and their typical height are shown below:

- Skip Lorry: 6.3m (L), 2.5m (W), 3.65m (H) - 45 minutes maximum dwell time/per visit.
- Heavy Good Rigid Flatbed: 10.0m (L), 2.5m (W), 3.65 (H) - 60 minutes maximum dwell time/per visit.
- Articulated Lorry: 16.5m (L), 2.55m (W), 120 minutes maximum dwell time/per visit.
- Concrete Mixer: 8.4m (L), 2.5m (W), 4.0m (H - 60 minutes maximum dwell time/per visit.
- Rigid Truck: 12.0m (L), 2.5m (W), 3.93m (H) - 120 minutes maximum dwell time/per visit.

The majority of vehicle movements to and from the site will be carried out by concrete delivery vehicles and muck away lorries.

The largest vehicle that will serve the site is currently expected to be a large HGV lorry.

The movement of demolition and construction related traffic will be managed to cause minimal disruption as possible to free flowing traffic on New Road.

The current programme is expected to run for approximately 3 years. Phases include site setup & demolition (four months), excavation (four months), sub-structure (three months), super structure (two years on and off), cladding (20 months on and off) and fit-out (20 months on and off).

Linfield Construction anticipate there to be circa 45 traffic movements per month (deliveries and muck away) during the demolition process. In addition to this, Linfield Construction anticipate there to be circa up to 60 traffic movements per month during the construction process, which will be on and off and in phases.

Figure 6.1 Estimated Construction Vehicles – Monthly and Daily

NO. OF VEHICLES IN PEAK PHASE (EX. OTHER PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2023 - Q3 2023	45	2
Basement excavation and piling	Q3 2023 - Q4 2023	45	2
Sub-structure	Q1 2024 - Q1 2024	60	3
Super-structure	Q1 2024 - Q1 2026	60	3
Cladding	Q3 2024 - Q2 2026	50	3
Fit-out, testing and commissioning	Q3 2024 - Q2 2026	20	1
Peak period of construction	Q1 2024 - Q2 2025	60	3

NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2023 - Q3 2023	45	2
Basement excavation and piling	Q3 2023 - Q4 2023	45	2
Sub-structure	Q1 2024 - Q1 2024	60	3
Super-structure	Q1 2024 - Q1 2026	60	3
Cladding	Q3 2024 - Q2 2026	60	3
Fit-out, testing and commissioning	Q3 2024 - Q2 2026	60	3

Figure 6.2 Estimated Construction Vehicles Over Time

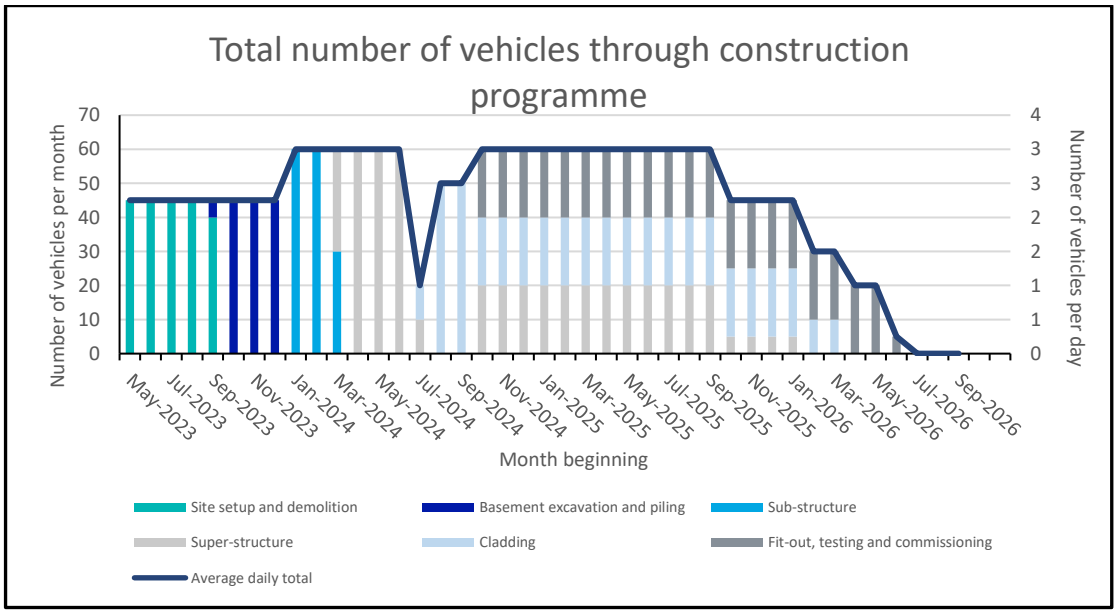
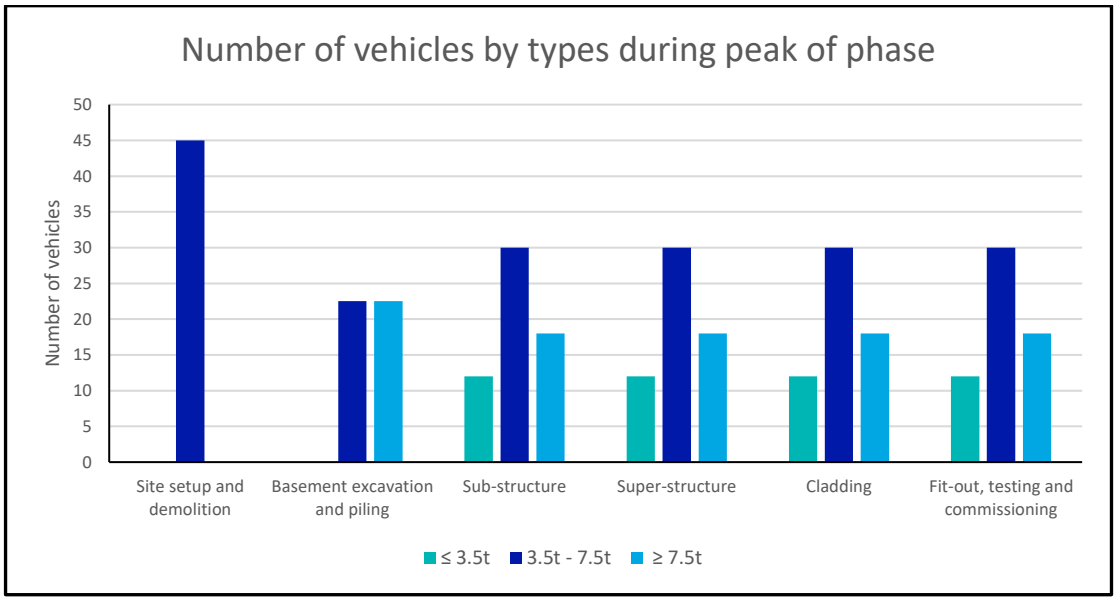


Figure 6.3 Number and Vehicle Type by Phase of Construction



7 Implementing, Monitoring and Updating

7.1 Role of Project Manager

The Contractor/Construction Manager is Linfield Construction Ltd and they will assume all responsibility for implementing the measures within the CLP. Their contact details will be displayed at the site and published on any temporary licenses granted by LBWF as the Highway Authority (such as for hoarding or scaffolds).

They will liaise with local stakeholders and the project managers for other construction activity in the local area when and where it is relevant to do so. They will also commit to liaising with other contractors in the vicinity of the site to maximise the potential for consolidation and to minimise traffic impacts.

Linfield Construction Ltd will also be responsible for monitoring and reviewing this CLP on an ongoing basis to reflect the changing needs of the project and/or any changes to the local road network.

Linfield Construction Ltd will act as a point of contact between local stakeholders / businesses / residents so that in the event of issues / concerns arising during the construction process, action can be taken as quickly as possible.

Information boards will be displayed at the site highlighting the key personnel on site including their contact details. A 24-hour emergency contact number will also be provided.

Local businesses and residents will be able to call the site office to raise any concerns and Linfield Construction Ltd will personally deal with any comments or complaints and will ensure that they are resolved quickly. A record will be kept of any / all comments and complaints.

7.2 Monitoring and Updating

This CLP is expected to be a ‘living document’ and so should be updated during construction if any significant changes to the scope or programme of construction occur.

Although the CLP can be reviewed at any time, CLPs are typically reviewed prior to the start of a new phase of construction.

Where there is a concentration of construction activity, it is good practice to set up a construction working group, with representatives from all interested parties. The working group should share the results of the CLPs, broken down so that people can see the impact for each individual development phase and the numbers and types of vehicles in use. There is an expectation that the contractor will participate and work together with others in the area to minimise impacts.

Online delivery booking and tracking systems also provide detailed evidence about the number and type of delivery vehicles, and the efficiency and accuracy of the deliveries made. All this information will help highlight actual impacts of deliveries against predictions and help set targets for future impact assessments.

7.3 Contractors' Handbook

A Contractor and Driver Handbook can be used to distribute information to those responsible for abiding by this CLP. A handbook is recommended to aid in implementing the CLP.

Producing a handbook is an effective way to ensure that all contractors are aware of their obligations.

This should include the following:

- Safety toolbox talk – setting out how and when these will take place, including frequency and duration and an outline of topics to be included. These should be environmental and safety orientated.
- Anti-idling toolbox talk – setting out how and when these will happen for all drivers, including frequency and duration.
- Vehicle routing and delivery scheduling system – an explanation to the contractor of the routing and delivery system in use. The vehicle routes to take are discussed earlier in this CLP in Section 4.
- Driver training – an outline of how and when this will happen during the contract, and the company that will carry out the training.
- Safety and environmental standards.

7.4 Contract Compliance

Contractors must report on any requirements that are part of the planning condition and / or this CLP. This must happen at a pre-agreed time, such as daily, weekly or monthly.

7.5 Drivers' Handbook

Owing to the subcontracted nature of the construction industry, it is important that all drivers are aware of their obligations. Therefore, a drivers' handbook should include essentials relating to environment and safety. It should be concise, specific to the individual construction programme, and should include:

- Authorised routes to and from the site
- Site opening times
- Booking and scheduling information
- Site entry and exit points, and other information relating to access
- Anti-idling
- Vulnerable road user safety

7.6 Considerate Constructors Scheme

The construction project will be registered with the Considerate Constructors Scheme in order to minimise negative impacts that construction activity may have on the local area.

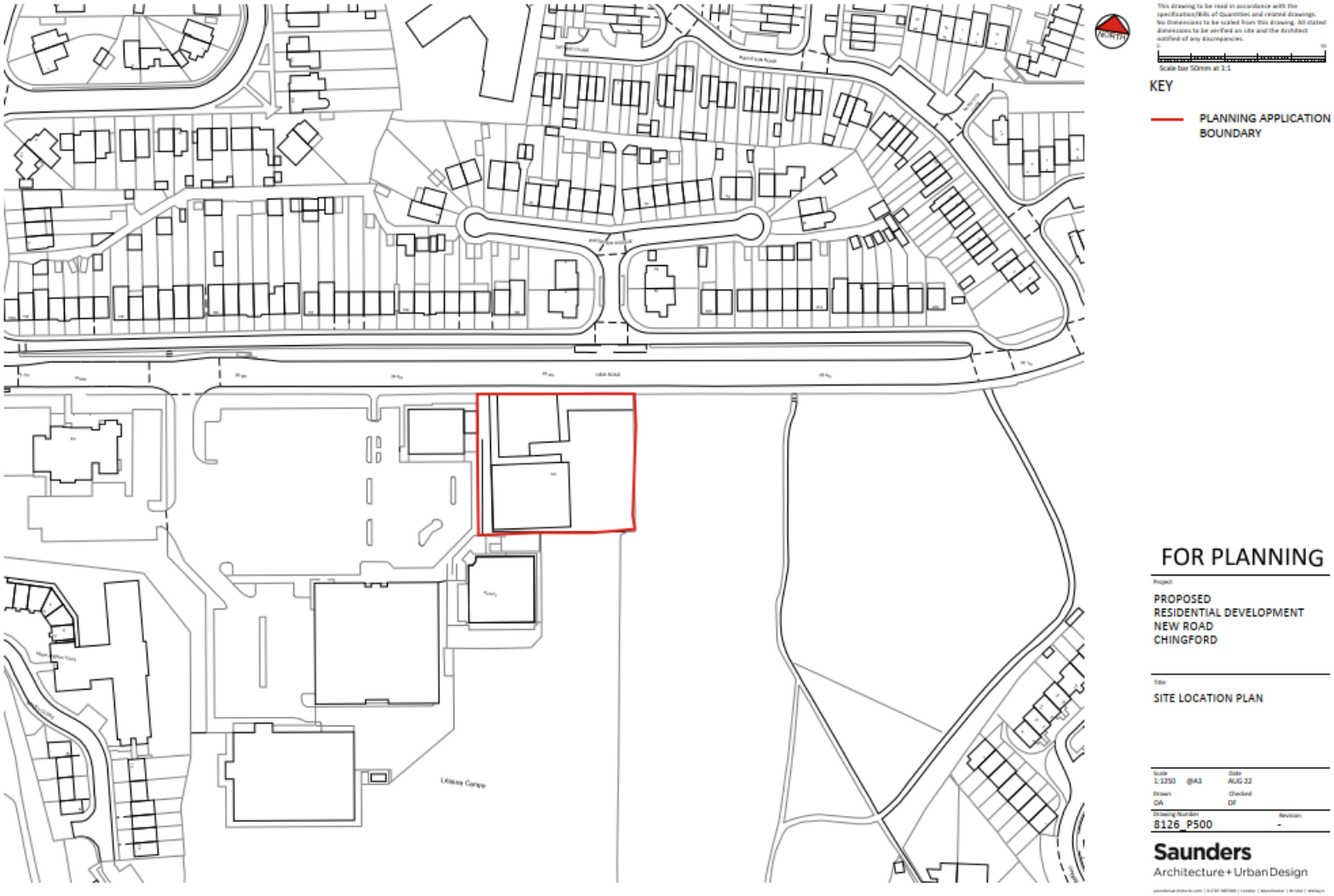
It is hoped that the construction drivers (who will be sub-contractors) participate in this scheme. Participation in the scheme will ensure and commit the construction project and its workers to providing competent management, efficiency and awareness of environmental issues. In addition, appropriate monitoring will be undertaken to review practices and assess performance.

Membership of the scheme requires compliance with a code of practice and seeks to:

- Minimise any disturbance or negative impact (in terms of noise, dirt, and inconvenience) caused by construction sites to the immediate neighbours.
- Eradicate offensive behaviour and language.
- Result in an improved understanding and respect from residents and others in the community, and fewer complaints.

Appendix A : Location Plan

91714


NORTH
Scale bar 50mm at 1:1
KEY
PLANNING APPLICATION BOUNDARY
FOR PLANNING
PROPOSED
RESIDENTIAL DEVELOPMENT
NEW ROAD
CHINGFORD
SITE LOCATION PLAN
1:1250 @A3
AUG 22
DA
DF
8126_P500
-
Saunders
Architecture + Urban Design

Appendix B : Proposed Site Plans


RESIDENTIAL PROPERTIES
FIVE STOREY BLOCK WITH ACTIVE FRONTAGE TO NEW ROAD
NEW ROAD
AMENITY SEATING / TREE LINED PATH TO GROUND FLOOR APARTMENTS AND COMMUNAL ENTRANCE
TREE LINE EDGE WITH PLANTING
SEVEN STOREY BLOCK WITH ACTIVE FRONTAGE TO FUTURE LINEAR PARK
TESCO
CAR PARK
BUSY BEE NURSERY
PROPOSED OFFSITE IMPROVEMENTS
ACCESS ROAD TO RESIDENTS PRIVATE COURTYARD / PARKING
SECURE ACCESS GATE TO RESIDENTS PRIVATE COURTYARD
SHARED SURFACE RESIDENTS COURTYARD / PARKING
PROPOSED SUB-STATION
LANDSCAPED BUFFER / RETAINING STRUCTURE ALONG SENSITIVE EDGE TO EXISTING WOODLAND AND DESIGNED LOCAL GREEN SPACE
KEY:
APPLICATION BOUNDARY
EXISTING TREE
PROPOSED TREE
EXISTING WOODLAND
SPECIAL PLANTING TO WOODLAND
LANDSCAPE BUFFER TO WOODLAND AND LOCAL GREEN SPACE
RESIDENT'S AMENITY / CHILDREN'S PLAY SPACE ON PODIUM
BUILDING ENTRANCE
POTENTIAL PV (SHOWN INDICATIVELY)
POTENTIAL BROWN ROOF FOR ECOLOGY (SHOWN INDICATIVELY)
RESIDENT'S AMENITY / ROOF DECK
FOR PLANNING
PROPOSED
RESIDENTIAL DEVELOPMENT
NEW ROAD
CHINGFORD
PROPOSED
SITE LAYOUT
1:200 @A1
AUG 2022
DA
DF
8126/P600
-
Saunders
Architecture + Urban Design

91714

NOTE:

- BASE DRAWING PROVIDED BY OTHERS
- SITE BOUNDARY TO BE CONFIRMED
- ARBORICULTURE CONSTRAINTS AND ROOT PROTECTION AREAS TO BE CONFIRMED
- ALL LEVELS SUBJECT TO SURVEY AND INSPECTION.
- ALL BACK TO BACKS TO BE ASSESSED AGAINST LOCAL AUTHORITY GUIDELINES.
- DISTANCE FROM EXISTING BOUNDARY TO BE ASSESSED AGAINST LOCAL AUTHORITY GUIDELINES.

LANDSCAPING SHOWN INDICATIVELY. REFER TO LANDSCAPE ARCHITECTS DETAILS.

PLANNING ISSUE

PROPOSED RESIDENTIAL DEVELOPMENT
NEW ROAD CHINGFORD

PROPOSED GROUND FLOOR PLAN

Scale 1:100 @A1 Date 12/21/21
Drawn SD Checked DF
Drawing Number 8126_P700 Revision

Saunders
Architecture+Urban Design

91714


RESIDENTIAL PROPERTIES
NEW ROAD
KEY:
MASTERPLAN BOUNDARY
APPLICATION BOUNDARY
FOR PLANNING
PROPOSED
RESIDENTIAL DEVELOPMENT
NEW ROAD
CHINGFORD
PROPOSED
SITE LAYOUT
(WITHIN MASTERPLAN)
1:500 @A1
AUG 2022
DA
DF
8126/P601
Saunders
Architecture+Urban Design