

Construction Management Plan

LOSTAT – West Hampstead Station Upgrade



LSWH-EN31-HSS-PLA-BCK-00018

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Date:	01/07/2016
Revision	C04

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LOSTAT – West Hampstead Station Upgrade:
January 2016 to August 2018
BGCL Contract No: C15059
Document Ref:- - LSWH-EN31-HSS-PLA-BCK-00018

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Review and Acceptance by: _____
 On behalf of Transport (Rail) for London

Job Title:

Date:

The responsibility for the health, safety and environmental management of the Works rests fully and unreservedly with the Principal Contractor. The acceptance of a Construction Phase Plan on behalf of RFL and involvement in Studies or Audits does not in any way absolve the Principal Contractor from that responsibility, nor is it intended to confirm or suggest that the Principal Contractor fully meets the statutory requirements.

Rev.	Date	By	CM Approval	Date	Description of Modification
001	15/03/16	RB	MR	29/06/16	Initial Issue
002	24/05/16	RB	MR	29/06/16	Amendments following LO comments
003	29/06/2016	RB	MR	29/06/16	Completion of community consultation (appendix B)
004	01/07/2016	RB	MR	29/06/16	Include LO comments
Approved by					Date
Project Manager			Robert Bullman		29/06/2016
Framework Director			Matt Riddick		29/06/2016
HSEQ Advisor			James Brown		29/06/2016
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Network Rail			N/A		

Contents

Item No	Section Title
1.0	Introduction
1.1	Site of Work Leased to a Third Party by Network Rail
1.2	Location of the Work Site Occupied by Others
1.3	Description of Project
1.4	Table of acronyms
2.0	Arrangements
2.1	Key Project Contacts
2.2	Project Management Roles and Responsibilities
2.3	Communication and Co-operation
2.4	Site Hoardings
2.5	Traffic/Pedestrian management
2.6	Planned working hours
3.0	Health & Safety and Environment
3.1	Personal Protective Equipment Requirements
3.2	Environmental
	Appendices
A	Phasing Plans including Temporary Passenger walkway and associated implementation dates
B	Notes Following Community working groups consultation

1.4 Table of acronyms

Acronyms	Definition/Expanded
LOSTAT	London Overground Stations Capacity Enhancement Programme
PC	Principal Contractor
CDM	Construction Design Management Regulations
ELL	East London Line
BGCL	Buckingham Group Contracting Limited
HSQE	Health & Safety, Quality and Environment
CRE	Contractor's Responsible Engineer
CEM	Contractor's Engineering Management
QS	Quantity Surveyor
FORS	Fleet Operator Recognition Scheme
BREEAM	Building Research Establishment Environmental Assessment Methodology
RFL	Rail for London
CLP	Community Liaison Plan
AQMA	Air Quality Management Area
NRMM	Non-road mobile machinery
SMS	Short message service
TM	Traffic Management
TfL	Transport for London
PPE	Personal Protective Equipment
WPP	Work Package Plan

1.0 Introduction

West Hampstead is an area of growth. It has been identified as an 'area for intensification' in the London Plan and a 'growth area' in Camden Councils Local Development Framework (LDF). The new Ballymore development south of the station will add to the vibrancy of the area but also compound the pressure on West End Lane and public transport.

The London Overground Station at West Hampstead serves the North London Line and is located on West End Lane. The Overground Station is in close proximity to West Hampstead Underground Station (Jubilee Line) and West Hampstead Thameslink Station. The three stations on West End Lane are used by more than 13 million passengers each year. The only physical connection between the three stations at present is the congested footways adjacent to West End Lane. The existing entrance is shown in Figure 1 below.



Figure 1: Existing West Hampstead narrow entrance

The station has two platforms serving passenger trains towards Stratford and Richmond on electrified ballasted track. The tracks run east – west below West End Lane, with Platform 2 on the north side and Platform 1 on the south side. The line is used by both passenger and freight trains.

The station consists of a masonry concourse building at street level with two timber-framed staircases down to each of the platforms. There is no step free access to the platforms.

It has been noted in recent years the operation of the station has become more difficult. Passenger numbers are rising year-on-year and during the peak hours congestion has become an increasing problem. An analysis of the existing building, which dates back to the Edwardian period shows that the booking hall has an irregular shape and is too small for forecast (and current) passenger flows. The ticket gate array consists only of 3 regular size gates and 1 wide-aisle gate and this causes congestion particularly when two trains arrive at the station simultaneously. Additionally, the staircases which link the booking hall to the platform are too narrow for current passenger flows and are not fitted out for modern accessibility requirements.

2.0 Scope of Works

In order to address the problems above it is proposed to construct a new station facility for the Overground railway line at West Hampstead which entailing :

- Construction of a new station building (south of existing concourse building) and accessible footbridge to both platforms, including 8 regular size gates and 2 wide aisle gates, a new larger concourse, ticket office and improved staff facilities.
- Provision of 2 lifts to provide step free access from street level to the low level platforms
- Installation of secondary means of escape from both platforms to street level
- Completion & integration of the platform widening works
- Partial demolition and reconfiguration of the existing station building to provide future retail opportunities
- Works to West End Lane including widening and resurfacing
- Hard and soft landscaping

See Figure 2 for details

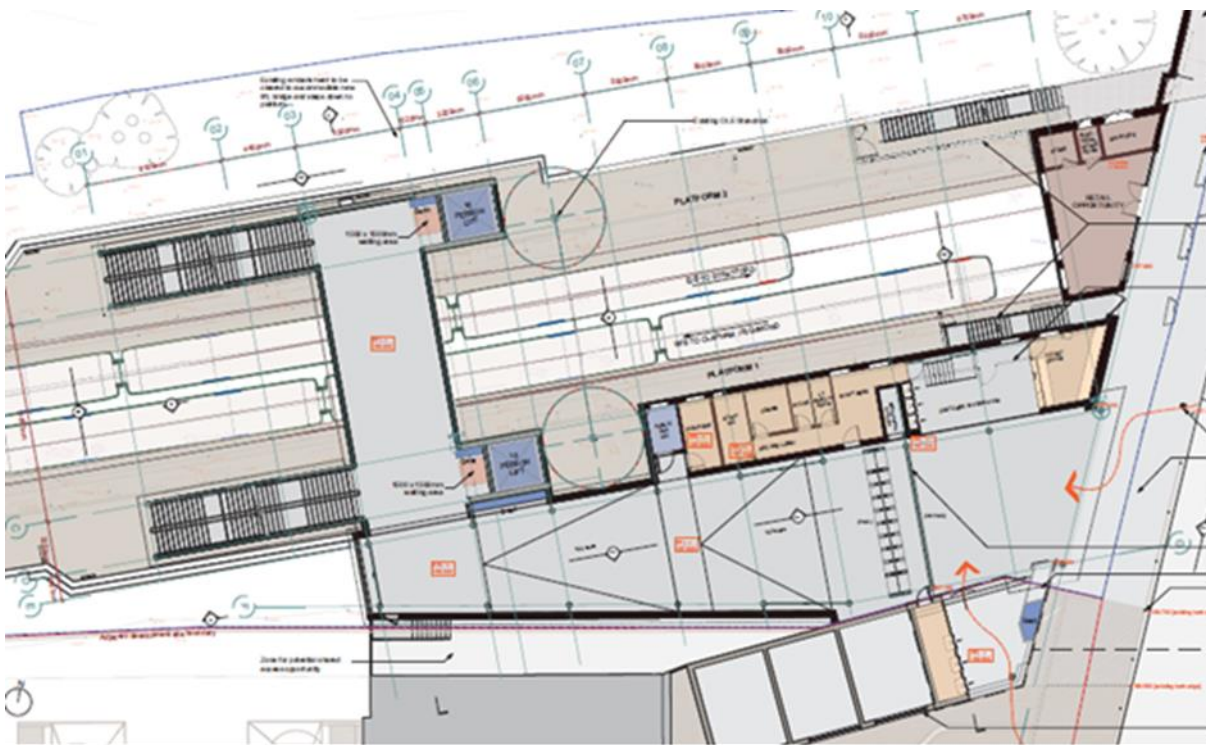


Figure 2: West Hampstead including New Footbridge and Station Structure (Concourse Level)

This Construction Management Plan outlines how all elements and phases of the construction work will be carried out safely, whilst minimising both impacts and disruption on all stakeholders/third parties.

This Construction Management Plan demonstrates how the following will be managed:

- Proposed start and end dates of the works
- Proposed working hours
- Access arrangements
- Delivery/vehicle management
- Traffic Management requirements
- Stakeholder/'Third Party' interface management
- Quality management
- Design management
- Environmental management

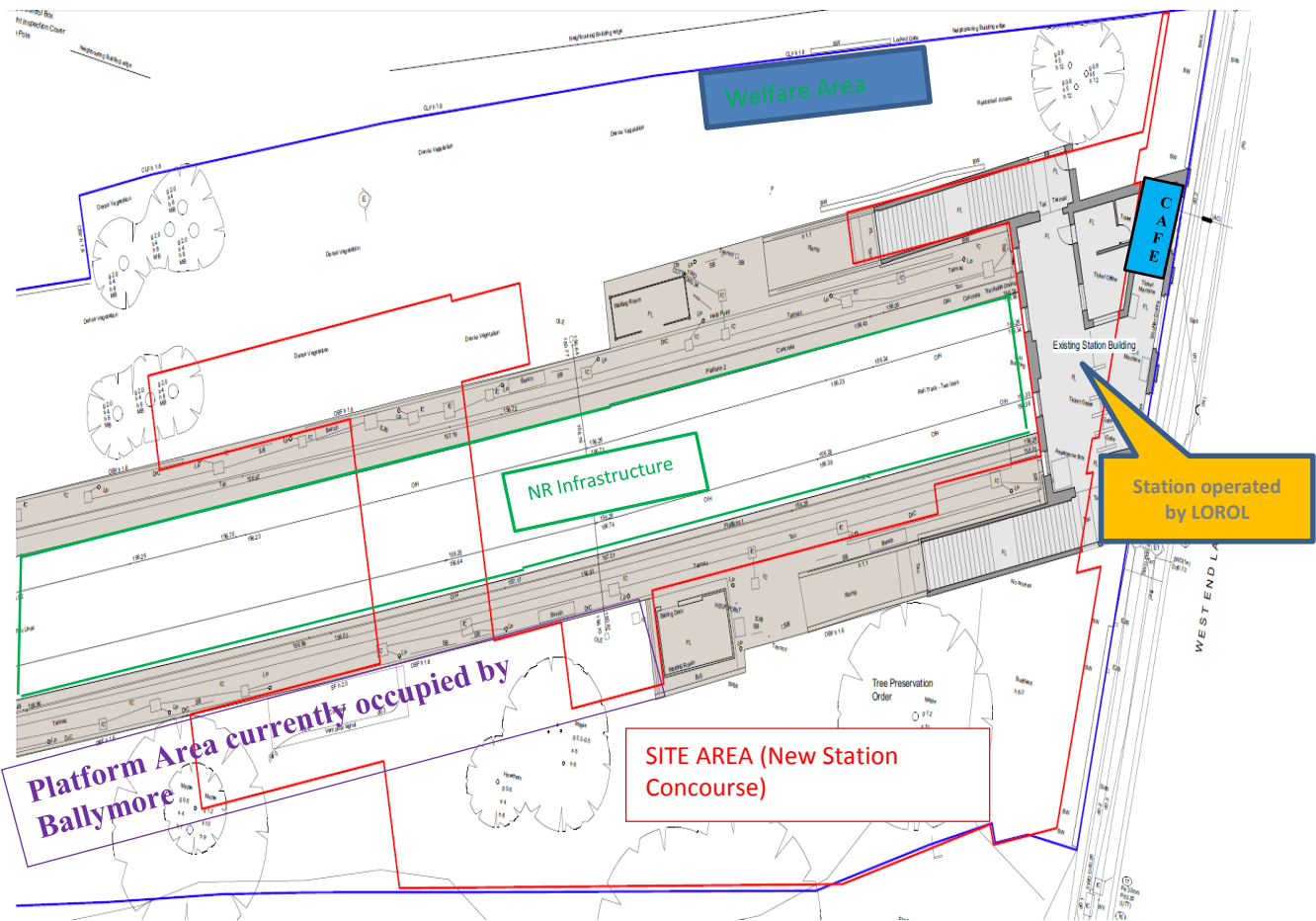


The contents of this Construction Management Plan must be complied with unless otherwise agreed with Camden Council. The Project Manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the Development. Any future revised plan must be approved by the Council and complied with thereafter.

A review of this Construction Management Plan will take place with the Community Working Group, consisting of local Residents and Ward Councillors prior to submission to the Council for approval.

1.1 Site of work Leased to Station Operator by Network Rail

Operational station is leased to and operated by London Overground Rail Operations Ltd (LOROL).



1.2 Locations where the worksite is occupied by others

Area to the South of platform 1 is currently occupied by Ballymore to facilitate the delivery of the West End Square Development.

We understand that this work is programmed to finish by summer 2016 and the area will be handed back to Transport for London (TfL) prior to the commencement of the main station works.

Buckingham Group Contracting Ltd (BGCL) and TfL will liaise with Ballymore to coordinate all works and traffic/pedestrian management.

1.3 Programme (indicative)

Activity	Start Date	End Date
Award Design & Build Contract	November 2015	
Detailed Design	December 2015	August 2016
Site Compound established in LU Yard on Blackburn Road	June 2016	July 2016
Construction Phase 1: Enabling Works (Highways Modifications / Site Set up)	Late August 2016	October 2016
Construction Phase 2: Foundations	November 2016	December 2016
Construction Phase 3: Install footbridge over railway	January 2017	March 2017
Construction Phase 4: Install temporary footbridge behind platform 2	April 2017	April 2017
Construction Phase 5: Construct new station concourse, lifts, ticket office, staff accommodation and gatelines	May 2017	March 2018
Construction Phase 6: Open new station concourse, remove temporary walkway, construct retail unit, landscaping	April 2018	July 2018

2.0 Arrangements

2.1 Project Roles and Responsibilities

Contracts Manager / Project Manager

- Act as the Principal Contractor’s Representative and shall ensure that all the PC’s CDM duties are carried out.
- To ensure the delivery of the project to the correct specification and within the required timescales and budgets.
- To ensure the project is delivered safely, and in accordance with all current legislation, Railway Group and Network Rail Company specifications.
- To deliver the project to the Client’s specification and requirements.
- To respond & report to the Client’s Project Manager.
- To keep the BGCL Senior Management fully apprised of all aspects of the project at all times.
- To be an active and constructive member of the team, identifying shortfalls to facilitate full use of the strengths and weaknesses of the team, enabling the ongoing development to completion of the contract.
- Nominate the BGCL Contractor’s Responsible Engineer’s (CRE)

Construction Manager

- To assist and support the Project Manager, ensuring the smooth interface between all other functions.
- To be the point of contact between BGCL and the Client, liaising with the Client and attending meetings as required.

- To ensure the delivery of the project to the correct specification, within the required timescale & budget, in accordance with contract requirements and for contract review.
- To ensure the project is delivered safely, and in accordance with all current legislation, Railway Group and Network Rail Company specifications.
- To deliver the project, to the Client's specification.
- To respond and report to the Client's Project Manager and BGCL Project Manager.
- To be an active and constructive member of the team identifying shortfalls to facilitate full use of the strengths and weaknesses of the team, enabling the ongoing development to completion of the contract.
- To monitor progress against the programme.
- To brief all staff associated with the project on all HSEQ matters and to resolved conflicts as they occur.
- To produce the Construction Phase (HSQE) Plan, making sure that it is adhered to and that it covers all disciplines and sub-contractor activities. Also ensure that it is kept up to date and reissued, identifying any changes in the document history.
- The issue of controlled documents between BGCL, the Client and other interested parties. It is the intention to use ACONEX and to appoint a document controller for this purpose. Relevant documents and plans will be stored on ACONEX.
- To keep the Project Manager fully informed, at all times, of all aspects of the project.
- To liaise with HSEQ and other representative's.

Contractors Responsible Engineer (CRE) – Construction

- To carry out acceptance and approval of Project Health, Safety, Environmental and Quality Plans, Work Package Plans and Task Briefings
- Identify persons who are competent and will be available on site to approve any site-based changes to the Task Briefing(s) during the works. The identified person/s does not need to be subject to formal competence assessed by Network Rail
- On site based change liaison with the client/Network Rail.

Site Agent

- To manage the production of Work Package Plans and Task Briefings
- Ensure that survey information to assess scope and enable planning is carried out and compiled by the engineering team.
- Responsibility for site compliance to Network Rail Company Standards
- To ensure compliance with identifying hazards, risk control measures and development of safe systems of work.
- Managing Site activities to ensure compliance with the Project Health & Safety Plan
- Input into the build ability requirements of any design requests and production.
- Ordering of materials to meet programme and quality requirements.
- Day-to-day liaison with other clients / designers / sub-contractors representatives and attending meetings as required.

Sub Agent

- To directly manage and supervise installation activities ensuring that site works progress, in a safe and efficient manner, within the identified timescales.
- To brief staff under their control on their responsibilities with particular reference to Health, Safety, Quality and Environmental issues.
- To ensure that the works are carried out in accordance with the approved Works Package Plan and Task Briefings and safe systems of work are implemented.
- To ensure that appropriate PPE is available and worn on site (as identified in the Task Briefings), and that all personnel are adequately trained and briefed on the tasks they are to undertake.
- To prepare work plans for individual items of work.
- To write requisitions for materials and plant appropriate to the works.
- To inspect and record details of the installation in accordance with inspection/test plans.

- Collate files and drawings for forwarding to the Principle Designer for the Health & Safety File

Project HSEQ Manager

- To assist the Project Manager & Construction Manager by providing advice and input to the Health, Safety, Environment and Quality Plan.
- To assist the Project Manager to implement planned arrangements for the execution of the project.
- Assist inspections to test and support the systems in place.
- To attend client meetings as required by the project team.
- To assist with identifying hazards, risk control measures and development of safe systems of work.
- To assist local enforcement authorities.
- To check that appropriate safety, quality and environmental training has been carried out.
- To ensure relevant HSEQ information is displayed
- To ensure details of HSEQ briefings are disseminated, including emergency information
- Inform site team of changes to legislation

Assurance / Engineering Manager

- To maintain site set up meets all procedures and necessary requirements
- To assist with Work Package Plans for approval
- To maintain a daily site diary
- To liaise with Site Agent for requisition plant and materials as required
- To liaise with Site Agent for safe disposal of site waste materials
- To carry out resource monitoring and supervise subcontractors and direct labour
- To ensure accidents are correctly reported
- To carry out site safety and quality inspections
- To liaise with Sub Agent to obtain TOC access permits
- Issue work permits: to dig, hot works, confined space etc.
- To produce weekly safety reports and liaise with Sub Agent on Tours / Inspections
- To hold team briefings / Toolbox talks
- To liaise with the public as necessary

2.2 Stakeholder Communication and Cooperation

BGCL have produced a Community Liaison which outlines how the essential commitment to collaboration, mutual respect and genuine community concerns is embedded in Project Structure and processes.

A 24hr Hotline telephone number will be available for Residents to contact the project should they have any complaints and or concerns regarding the works. This telephone number will be displayed at a suitable/visible location on site.

2.3 Identification and liaison with specific third parties.

Railway

Emergency Services	Contact number
British Transport Police	0800 405 040
Police/Fire/Ambulance	999
Local Hospital: Royal Free Hospital	020 8375 2999

Network Rail NDS 24:7	01908 723500
Network Rail Incident Hotline for vandalism, fly tipping, environmental issues	08457 114 141.

Utilities

Utility	Contact number
BT Openreach	0800 800 151
National Gas Emergency number	0800 111 999
Electricity	0800 028 0247 (0333 202 2022)
Water	0845 850 2777

2.4 Highway Authorities

Liaison with the Highway authority, where applicable will be through the TfL. Authority to undertake work on the highways shall be sought and agreement reached prior to setting-up or undertaking any works on the highway (including footpath and shrubbery land areas). Gaining authority shall be co-ordinated between BGCL, TfL (Client), the local council authority and the highways authority, as requested by BGCL's Project Manager.

The planning of traffic management shall involve BGCL, TfL, the appointed Traffic Management company Local Authorities and London Buses to ensure cooperation and coordination, and records shall be kept of all meetings and correspondence in relation to the planning of protection arrangements and / or road closures.

Where a 'Traffic Management' contractor is appointed to manage the protection arrangements on the highway then they shall coordinate operations between the appointed Traffic Management Company and Local authorities.

There is a clear need for consideration of delivery times and control measures for all stations. This will be detailed within the Project Traffic Management Plan which will be updated throughout the project.

2.4 Occupiers of adjacent Property & Businesses

Contact with landowners providing a temporary way leave access for construction works will be conducted by TfL if required.

2.5 Public Interface

BGCL's Community Stakeholder Liaison Manager will communicate details of the scheme and any planned activities via letter drops and liaison with appropriate neighbouring properties. The Project Manager will ensure that the Community Stakeholder Liaison Manager is kept up to date with the works programme.

The project will endeavour to inform local residents of out of hours working and the potential disturbance. This will be done through letters approved by TfL's Project Manager. The letters will be delivered approximately a week before the works.

BGCL are members of the Considerate Contractors Scheme. This further enhances the required degree of public interface management.

2.6 Temporary Site Hoardings, temporary site fencing and barriers

Timber Site hoardings (designed by a temporary works designer in accordance with required standards), Heras type fencing and Barriers complying with Chapter 8 of the DfT Traffic Signs Manual (Traffic Safety Measures for Road Works and Temporary Situations) will be installed to separate the site/works from the public, passengers and station staff.

Where required (depending on the nature of the works) the following will also be included:

- Debris netting or monarflex sheeting will be appended to the further protect passing pedestrians and or vehicles.
- Temporary lighting will be installed to maintain required lighting levels

The positioning of all hoardings, fencing and barriers will at no time obstruct safe passage of either pedestrian or vehicular traffic.

All of the above will be regularly inspected and maintained to ensure that they are stable, secure and function as designed at all times.

2.7 Traffic/Pedestrian Management

Site Access arrangements for Main phase of the works

Site access will be via the B510 West End Lane, approaching either from the North off the A41 or from the South off the A5. All site vehicles will be restricted to approaching from the North Circular (A406) to minimise surrounding route disruption with large site vehicles.

To accommodate access for the main works a temporary drop kerb access will be installed to the front of the new station building location which is to the South of the existing station (refer to attached TM plan). These works will include the installation of a concrete slab to protect any services and strengthening of the existing footpath in a reduced level state, for approximate 3m - 5m. A new tarmac surface will be constructed in accordance with Camden Council standards and specifications. The existing brick bridge parapet wall at the entrance to the new station will be demolished between the existing station stepped access and the existing bridge stone pillar. The main entrance to site will be secured with double gates manned at all times. The gate security will also ensure that the entrance to the site is kept clear and tidy at all times ensuring the footpath is kept clear.

Welfare location/ access:

Standalone welfare will be located to the North of the station behind platform 2 within the existing TFL maintenance area. Access will be agreed with the Hampstead West Industrial Estate Management. Access to the industrial estate is off Iverson Road (reference attached traffic management overview). Access from the welfare will be provided for foot passage only either via a gate and stepped access from West End Lane through the existing bridge parapet or via the industrial estate pedestrian routes.

Additional welfare and site accommodation will be provided on the London Underground site compound on Blackburn Road.

No onsite parking will be provided. All personnel will be advised to travel via local public transport. No site vehicles will be parked in adjacent streets at any time during the construction phase.

Public Interface:

The West Hampstead Station southbound bus stop on the opposite side of West End Lane will require relocating to reduce disruption caused during the works while the TM is in operation. Proposed location for relocation for the stop is south of the Blackburn Road junction (reference attached layout) or alternatively a temporary closure for the duration of the works. Alterations/ closure of the bus stop to be agreed with TFL, London Buses and Camden Council.

The pedestrian crossing at entrance to the existing station will have temporary lighting controls installed and the existing turned off for the duration of the works.

Vehicle Movements on Site

All vehicles will access site at per the details set out in section 2.1.

A holding area will be set up at the end of Blackburn Road within the site compound. All delivery wagons will be held in this location until they are required on site. The largest vehicle being 20t rigid. Average vehicle will be 7.5t and below. Deliveries will be between 8 am and 5pm. Where possible larger deliveries will be outside of peak times during night working with smaller deliveries during the day controlled by the TM arrangements.

The driver will receive a call from the TM operative to start their journey to the site entrance. The Traffic Management Operative will switch the pedestrian crossing to red to allow for safe access into site off the road. The holding area will minimise disruption caused by site vehicles to the normal traffic flows/ use of the surrounding infrastructure. No site vehicles will be permitted to stable on West End Lane.

All deliveries will be planned to a just in time basis to minimise storage requirements and disruption. Delivery vehicles will be restricted to stopping just inside the access gates to the site to reduce vehicular and work force interface.

Traffic management will be set up to control vehicular access to and from site. The Traffic management will be set up between the traffic light controlled junction at Iverson Road intersection and the existing stone pillar at the site entrance. The Traffic management will be set up and used as required throughout the day, on an intermittent basis to limit disruption caused to West End Lane.

Proposed routes between the site and the TfL road network (TLRN) will be carefully planned to ensure that all constraints/restrictions are considered and taken into account i.e. weight limits, width restrictions, height restrictions and traffic sensitive areas.

Pedestrian Movements on Site

Pedestrian access to the station platforms will be via the existing station entrance. Access to site will be via a segregated entrance on West End Lane, south of the station entrance. Once the new footbridge over the tracks has been erected the existing staircase access to platform 1 will be closed and passengers accessing platform 1 will be directed via a temporary walkway behind platform 2 and over the new footbridge to platform 1.

Vehicle/Pedestrian Segregation

Designated pedestrian walkways will be set up and signed along areas where traffic and pedestrians can come into conflict.

Pedestrians will be segregated on site and will use the designated walkways at all times. Any persons entering the "Work Zone" will have been briefed at induction that when approaching any working item of plant that the banksman or operator must have seen you and signalled it is safe to approach. The plant controller when required will cease operation to allow pedestrian access through the work area. Any person who has no need to access the work area shall remain in the pedestrian zone. Visitors will be escorted at all times. Unescorted persons will not be allowed access to site unless they have been inducted and briefed on the current activities.

Any plant crossing walkways shall be at designated points only.

All deliveries will be restricted to stopping just inside the access gates to the site to reduce vehicular and work force interface.

Signage requirements

Prominent signage will be displayed on site to enforce routing to and from the site. The location and nature of offsite signage will be determined on the site's Traffic Management Drawings.

The site's boundary will be adequately signed with relevant warning signs. These signs will be inspected on a daily basis and maintained at all times. A record of signage inspection is to be kept in the site diary.

The following signage will be required in the Works; Speed Limit signs, Pedestrian Crossing Signs, No Pedestrian Access Signs, General Warning Signs (i.e. Works Entrance, Works Exit, Caution Lorries Turning, No Entry, etc)

Appropriate lighting will be installed on site to ensure that access/egress points are clearly visible during operational hours. Care will be taken to ensure that lighting does not cause a nuisance to neighbouring properties or to distract traffic on adjacent roads

Banksmen requirements

Prior to any activities taking place a nominated Banksman will be in place to meet the plant/equipment/material on arrival. The banksman will be in attendance with the delivery vehicle at all times and control any reversing manoeuvres.

Public Highway Maintenance

The most important factor to maintaining the cleanliness of the public highway is always the cleanliness of the site. Debris transported from site onto the roads is easier to eliminate at the source. To achieve this, vehicles will be kept to hard standings and roadways at all times.

All hard standings and roadways used for vehicles entering, parking or leaving the site will be kept clean and in a maintained state, this will also include the site compound. If needed, vehicles leaving the site will be cleaned using a high pressure washer, ensuring that no vehicles leave site until their wheels, chassis, and externally bodywork have been effectively cleaned and washed free of earth, mud, clay, gravel, stones or any other similar substance.

The surrounding highways and entrance to the site will be inspected regularly for mud and debris. A road sweeper will be readily available to clean all highways and footpaths in the vicinity of the site as and when required with specific regard to the site entrance.

The nature of the works are such that if the site is properly maintained then no debris should leave the site and we would look to continue our zero compliant record on this issue throughout the demolition of the Imagination site.

Delivery Drivers

All delivery drivers will sign up to the 'Delivery Driver Agreement'. This is an agreement between BGCL and any supplier, stating basic site traffic rules. The agreement will clearly state route and site restrictions, including the requirements of the holding area. In order that a delivery driver who has signed up to the scheme can be recognised upon return, a 'Driver Conformation Sheet' will be placed in clearly visible place in the cab.

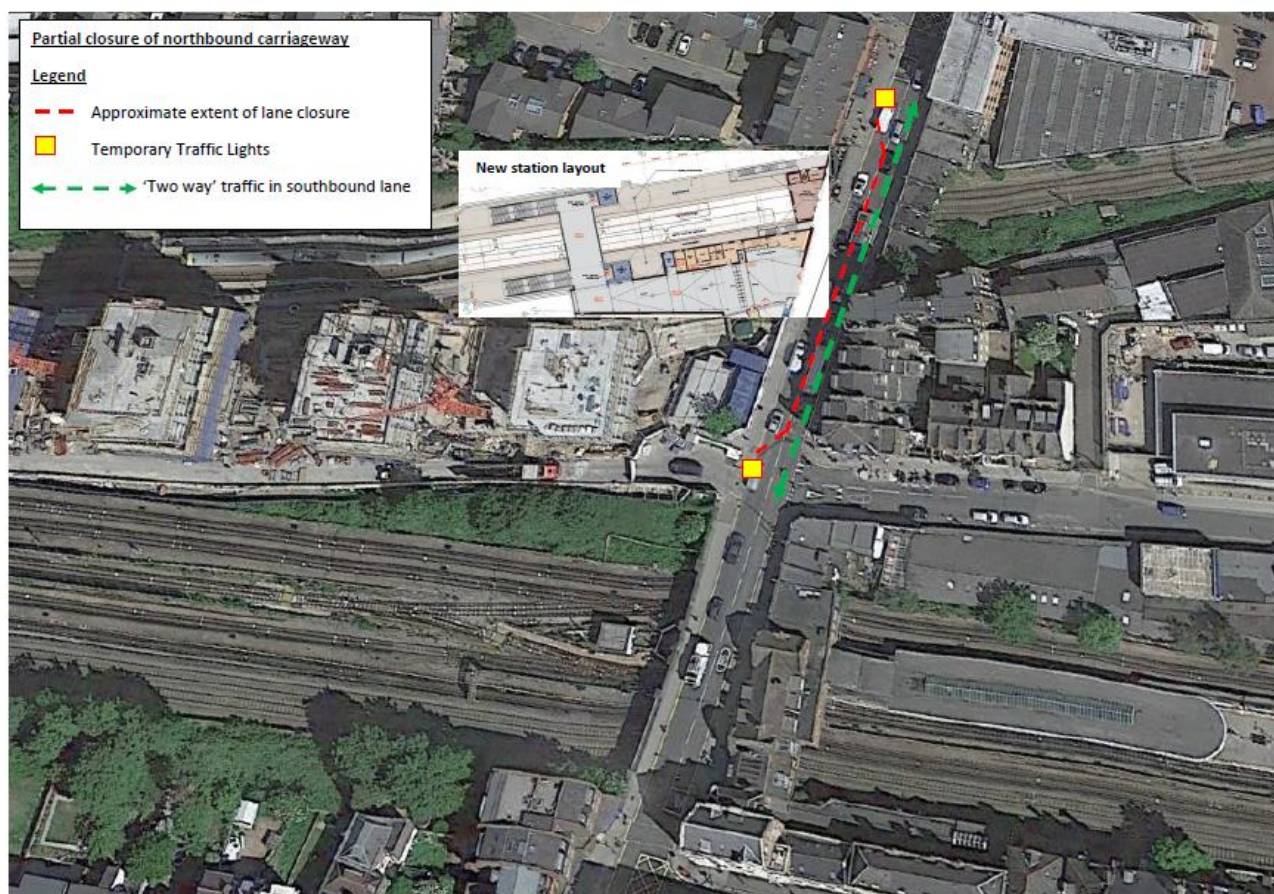
Overview of intended Road and Footpath closures

To facilitate the safe execution of the works (from both a public and workforce perspective), there will be a requirement to carry out a variety of road and footpath closures. These include the following:

Partial (northbound) road closure

This is required to enable the carrying out of the following works:

- Material deliveries
- Construction of access ramp down into site (Platform 1 side) for construction of new Concourse



Notes:

- All Traffic Management will be installed and maintained in accordance with Chapter 8 of DfT Traffic Signs Manual (Traffic Safety Measures and Signs for Road Works and Temporary Situations) by New Road and Street Work Act (NRSWA) accredited operatives
- Temporary closure and diversion of 'local' elements of the footpath will be set up adjacent to the delivery vehicles. This will maintain pedestrian safety when deliveries are being made

- To minimise disruption and maintain traffic flow, traffic will be monitored at all times when Traffic Management is in place. Temporary Traffic Lights will be monitored and timings altered accordingly. NB – Tidal timing set up will be adopted to reduce congestion.

Full road closure

A full road closure will be required to enable the carrying out of the following works:

- Large Material deliveries. This is currently planned to be for the delivery / installation of the Stairs and footbridge



Notes:

- All Traffic Management will be installed and maintained in accordance with Chapter 8 of the Traffic Signs Manual and by installed by NRSWA accredited operatives
- The exact details of the diversionary route will be developed and agreed in liaison with Camden Council, TfL and London Buses

Closure of the western footpath

This is required to enable the carrying out of at least the following works:

- Installation/reinstatement of temporary footpath crossing (south of existing pedestrian crossing)
- Demolition of existing station frontage
- Construction of new footpath at the front of the station



Notes:

- All signage will be installed and maintained in accordance with Chapter 8 of the Traffic Signs Manual and by installed by NRSWA accredited operatives
- Pedestrians will be directed to/from the diverted route via safe means ie existing pedestrian crossings

2.6 Planned Working hours

The working hours of personnel will not normally exceed those limits laid down in BGCL standards. Where exceptional circumstances exist a specific risk assessment will be undertaken by BGCL site management prior to the hours being exceeded.

Maximum shift lengths for the project will be 12 hours including breaks with a 10 hour shift being standard (8am-6pm). The maximum shift including travel time will be 14 hours. Where the travel times and shift lengths of individuals would exceed 14 hours either the shift length will be reduced or local accommodation will be sourced. In order to monitor this, all site personnel will be required to sign in and out using our Datascope system on site daily to record their arrival time on site, the time they left their place of rest, the time they left site and the expected travel time to their place of rest.

BGCL will notify TfL of any exceedance of working hours incurred by project staff in respect of this contract. Working Hours will be an agenda item at the Joint HSEQ meeting. The requirements of the Railway and Other Guided Transport Systems Regulations will apply in all respects to this contract.

Where necessary, the works will be carried out overnight due to the following reasons:

Possession type works

- Required to maintain the safety of the operational railway and project workforce
- These shifts will be either week day night shifts, weekend day shifts or weekend night shifts
- The night shifts will typically be 2300hrs until 0600hrs

Station closed periods

- Required to maintain the safety of the station staff, passengers and project workforce
- These shifts will be either week day night shifts, weekend day shifts or weekend night shifts
- The night shifts will typically be 2300hrs until 0600hrs

Road Closures

- Required to enable safe delivery of large elements of the works and may include associated craneage
- These shifts will be either week day night shifts or weekend night shifts
- The night shifts will typically be 2200hrs until 0600hrs

3.0 Health & Safety and Environment

3.1 Personal Protective Equipment requirements

The following PPE is mandatory for all personnel at all times:

- Network Rail approved Hi Vis vest/jacket
- Network Rail approved Hi Vis trousers
- Hard Hat
- Protective footwear in accordance with Network Rail standards
- Gloves
- Protective eyewear

In addition to the above and where required, Task specific PPE will also be worn/used.

3.2 Environmental Requirements

3.2.1 Environmental Impact Areas

BGCL is aware of its obligations to consider sustainable development in the project and integrate these policies into the design and construction of the Scheme. There will be consideration of the environmental impacts on the local, regional, national and global environment. This will incorporate the objectives set out in the BGCL Sustainability Policy and the Site Waste Management Plan.

BGCL will work closely with the designer, to identify opportunities to reduce the adverse impacts of the project during construction, operation and decommissioning. In addition, the project will investigate the possibility for environmental enhancement.

The design process, as a minimum, shall take into account any legal, best practice and client requirements. In addition, it shall consider sustainable construction, for elements such as:

- Independently certified sustainable timber (Forest Stewardship Council)
- Minimisation of volumes of virgin materials and maximise recycled materials
- Sourcing low carbon materials
- Minimise the production of waste
- Transportation distances
- Opportunities for use of prefabricated/refurbished structures and components
- Long-term noise impacts of the operational railway to neighbours
- Alternative construction methods to reduce impact to the local community
- Impact of hoarding on the local environment
- Long term adaptation to climate change
- Landscaping and local biodiversity levels

A process will be developed to enable environmental considerations and sustainable development to become an intrinsic part of the design process. This will be managed additionally in accordance with the value engineering exercise as part of the Engineering Management Plan.

3.2.2 Air Quality

The whole of Camden has been designated an Air Quality Management Area (AQMA). This is mainly from Nitrogen dioxide NO₂ and Particulate Matter PM₁₀ arising from vehicle emissions.

Air pollution including odour, dust, particulates, fumes and smoke, may arise from activities associated with the project. This could include:

- Use of vehicles
- Use of plant (fixed and mobile)
- Use of volatile substances such as solvents and fuels
- Dust/air pollution as a result of site operations and activities (e.g. demolition, excavation and construction operations with small hand tools)
- Uncovered stockpiled materials

Design

Air Pollution will be considered during the design phase and planned in order to reduce or eliminate the amount of air pollution and dust which will be produced. Best practicable means will be followed to minimise emissions to air. If this cannot be minimised the design will minimise the impact on receptor sites from this work. This will be reflected in the drawings and in this Environmental Management Plan. Management will be achieved through:

- Consideration to using prefabricated materials where possible so that localised air pollution is minimised.
- Specification of dust control measures in designers risk assessments
- Techniques will be specified to control dust from construction activities and emissions from vehicles and plant, and when to undertake air quality monitoring. This shall conform to the 'medium' or 'high' risk categories outlined in the Best Practice Guidance when extra control may be needed.

Construction

There are a number of sensitive receptors in the vicinity of the above activities, including residential dwellings, commercial premises and offices. The Construction Phase shall be carried out in accordance with the Best Practise Guidance Note "Control of dust and emissions from construction and demolition" published by London Councils, 2006.

Measures shall be specified to minimise and reduce the amount of dust pollution. The nature of work, weather conditions, topography and time of year will be taken into account when determining the level of dust control required.

Air Pollution will be managed in order to reduce impacts to a minimum, and to eliminate where practicable. The site management will be responsible for taking steps to eliminate or reduce to a practical minimum the release of substances to air. During construction management will be achieved via the following:

- Techniques to control PM10 and NOx emissions from vehicles and plant
 - 1) Low emission plant fitted with catalysts, diesel particulate filters or similar devices shall be used;
 - 2) Plant shall be well maintained, with routine servicing of plant and non-road mobile machinery (NRMM) to be completed in accordance with the manufacturers recommendations;
 - 3) Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment;
 - 4) Non-road mobile machinery (NRMM) shall use ultra low sulphur tax-exempt diesel and be fitted with appropriate exhaust after-treatment such as catalysts, diesel particulate filters as stated on the approved list managed by the Energy Saving Trust. Details of the plant and control equipment shall be included in the method statement.
 - a) All construction vehicles shall comply with the Euro 4 emissions standard and where possible use low emission fuels and alternative technology.
 - 5) Plant and vehicles shall be located way from the closest receptors or house in closed environments where space allows.

- Techniques to control dust emissions from construction and demolition
 - 1) Keep site fencing, barriers and scaffolding clean using wet methods;
 - 2) Buildings to be demolished shall be wrapped
 - 3) Provide easily cleaned hard standing for vehicles and clean using wet sweeping methods;
 - 4) Inspect internal haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;
 - 5) Routinely clean the Public Highways and accesses using wet sweeping methods especially during dry periods;
 - 6) Impose and signpost maximum speed limits of 10 mph on surfaced haul routes and work areas within the Site;
 - 7) Ensure all vehicles carrying loose or potentially dusty material to or from the site are fully sheeted;
 - 8) Store materials with the potential to produce dust away from site boundaries;
 - 9) Sheet, seal or damp down stockpiles of excavated material held on site;
 - 10) Any loose materials brought onto the site shall be protected by appropriate covering
 - 11) In dry conditions the site shall be dampened down during the working day and again at the end of the day to reduce the amount that is re-suspended dust.
 - 12) Ensure water suppression is used during demolition operations;
 - 13) Ensure mobile crushing and screening plant and cement batching plant which are regulated under the Local Air Pollution Prevention and Control regime operate in compliance with a Part B Permit. This shall be submitted to the local authority prior to operation.
 - 14) No fires permitted on site.
 - 15) Fuels, oils and volatile organic compounds will be stored in secure, sealed, labelled containers.
 - 16) Following the design methodology to reduce air emissions i.e. using prefabricated materials where possible so that localised air pollution is minimised.
 - 17) Vehicles and plant will be switched off when not in use
 - 18) Ensure vehicles and plant are not over loaded to prevent labouring
 - 19) Using mains electricity in preference to generators where practicable.
 - 20) Covering loads entering and leaving site to prevent material escaping
 - 21) FORS accredited suppliers to be used to ensure any emissions from transport/haulage is reduced.
 - 22) All operatives will be encouraged to travel by public transport rather than car.

To ensure that these measures are enabled by those directly responsible for carrying out the works, the above will be included in relevant WPP's and or Tool Box Talks. The BGCL site management will monitor all activities to ensure that requirements are being met at all times.

- Air Quality Monitoring
 - a) Throughout the Construction Phase continuous particulate matter (PM10) monitoring shall be undertaken. Two instruments will be deployed at the site boundary in a transect orientated to the prevailing wind direction, with a third monitor located at the nearest sensitive receptor. One monitor shall be co-located with an anemometer.
 - b) Adequate quality assurance/quality control procedures shall be in place including monitor maintenance and calibration as well and data checking. PM10 data shall be collected automatically on an hour basis.
 - c) A trigger action level for PM10 concentrations of 200µg.m-3 (15 minute average) shall be used to identify incidences of elevated dust emissions at the site boundary. The development site shall comply with the trigger action throughout the demolition and construction phases.
 - d) An on-site alert system (email or SMS) shall be in place to notify appropriate staff that the trigger action level has been reached. Immediate and appropriate measures can be put in place to rectify abnormal particulate emissions. A procedure shall be established to deal with abnormal dust emissions. All incidences of abnormal particulate emissions leading to breaches of the trigger action level, shall be documented in the site log book (date and time), with details of the action take to remediate dust emissions. Lo shall also be made aware of the alert via the Project Manager.
 - e) Should levels been exceeded then the construction team will take measures to reduce any polluting activities taking place. A dynamic risk assessment will then look at ways further breaches can be stopped prior to commencing works. Following the shift the methodology of the works from
 - f) An e-mail specifying details of any alert to be sent out to the Council's air quality officer as soon as practicable following any breach of the site trigger action level.
 - g) An electronic report shall be submitted to the Council's air quality officer every three months summarising the following information from each monitoring site – 24 hour average PM10 concentration, date and time of any breach of the trigger action level with the 15 minute mean concentration, prevailing wind direction and details of the cause of elevated dust emissions and mitigation measures.
 - h) The Council shall be notified of any changes to the location and operation of dust PM10 monitoring instrumentation.

3.2.3 Techniques to Reduce Co2 emissions

To enable the control and minimisation of CO2 emissions, the following measures and controls will be considered:

- The use of 'well' maintained plant and equipment
- The use of (where possible) electrically powered plant and equipment
- Use of contractors and staff that do not have to travel significant distances to travel to/from the site
- Use of recycled materials
- Strict control of material quantities and associated wastage

3.2.4 Green Fleet Management

BGCL will where possible and reasonably practicable, adopt the principals of Green Fleet Management.

This will be achieved via the following:0

1. Maximising the efficiency of the existing vehicle fleet
2. Reducing vehicle use where possible, for example through a workplace travel plan
3. Reviewing the choice of fuels and vehicle technologies.

3.2.5 FORS (Fleet Operators Recognition Scheme)

All contractors, sub-contractors and material/plant delivery companies operating HGVs must meet all of the following conditions, see points below:

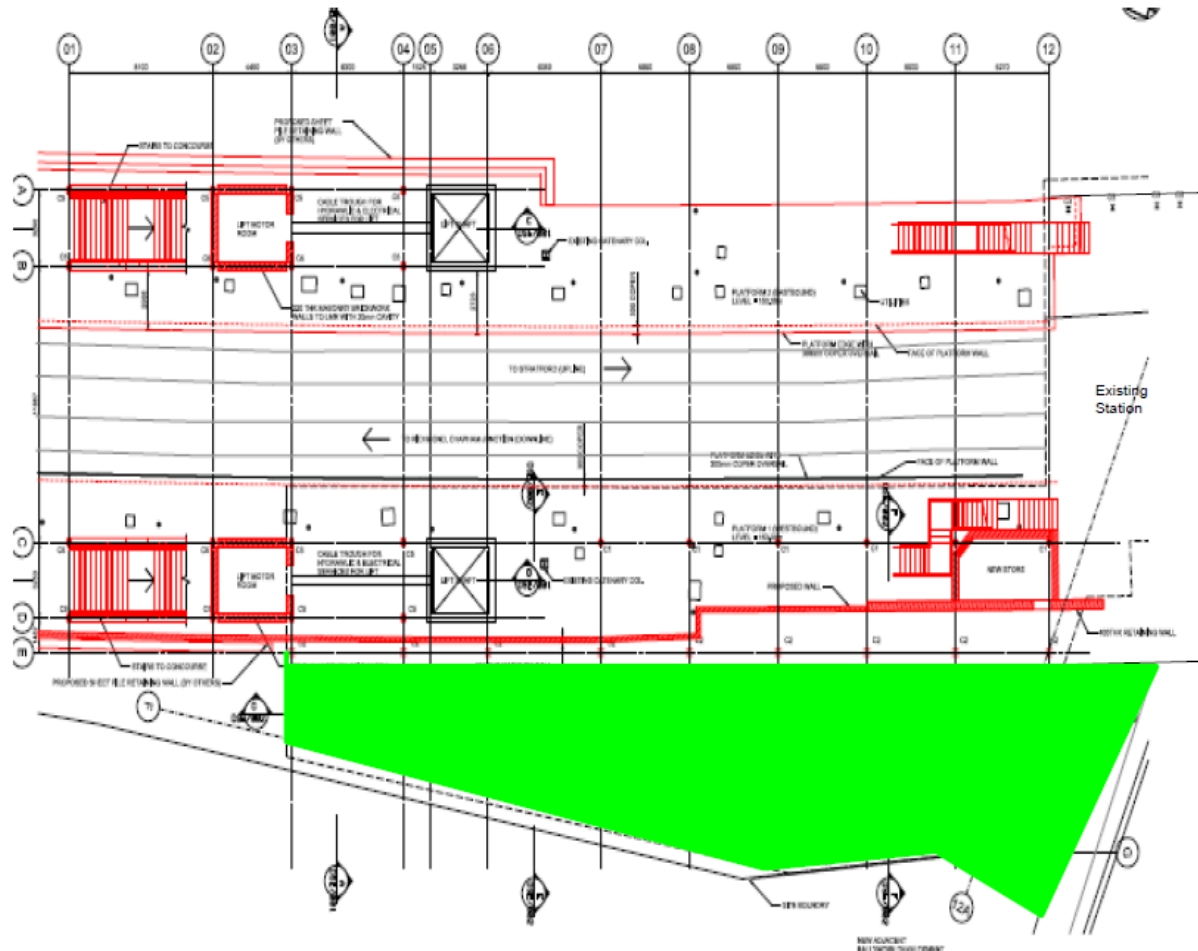
- 1) Operators must be a member of TfL's Fleet Operator Recognition Scheme (www.tfl.gov.uk/fors) or similar at the Bronze level.
- 2) All drivers must have undertaken cycle awareness training such as the Safe Urban Driver module through FORS or similar.
- 3) All vehicles associated with the construction of the Development must:
 - i) Have Side Guards fitted, unless it can be demonstrated to the reasonable satisfaction of the Employer, that the Lorry will not perform the function, for which it was built, if Side Guards are fitted.
 - ii) Have a close proximity warning system fitted comprising of a front mounted, rear facing CCTV camera (or Fresnel Lens where this provides reliable alternative), a Close Proximity Sensor, an in-cab warning device (visual or audible) and an external warning device to make the road user in close proximity aware of the driver's planned manoeuvre.
 - iii) Have a Class VI Mirror
 - iv) Bear prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.

Appendix A

Outline Phasing Plan



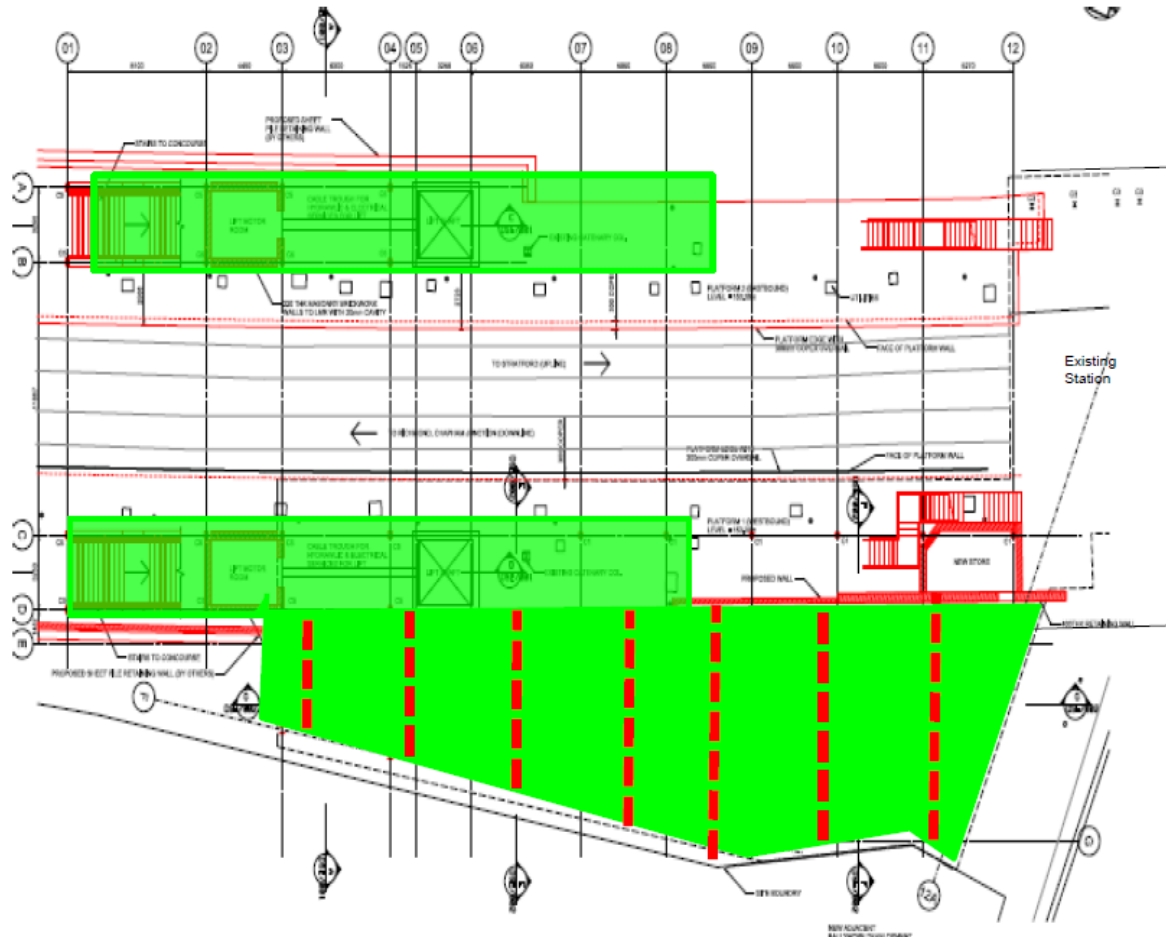
Phase 1: August 2016 – October 2016



- Enabling Works
- Highway works to facilitate access
- Site set up



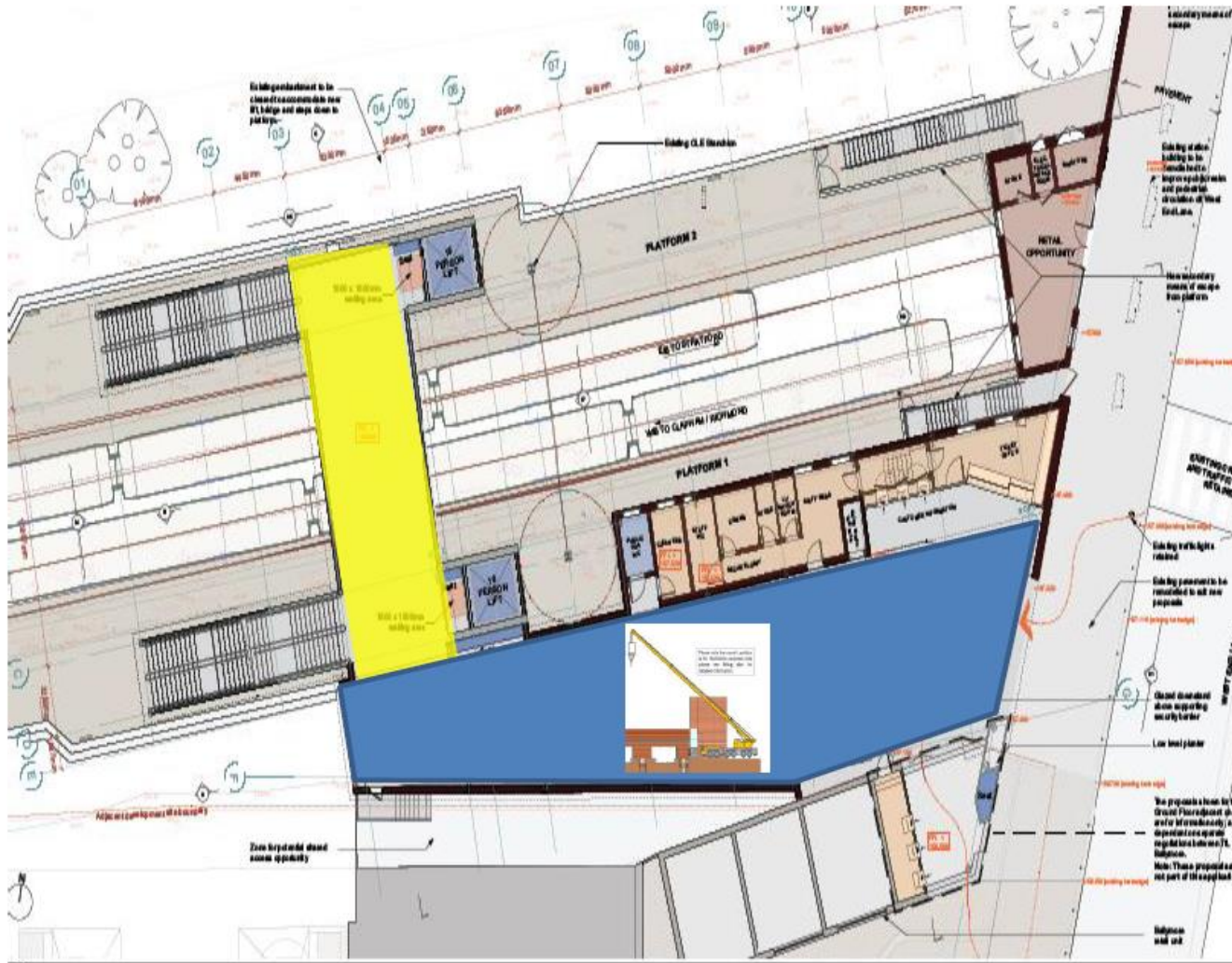
Phase 2: November 2016 – December 2016



- Construction of foundations for stairs and platforms
- Sheet piling for new station concourse
- Import fill material
- Construction of crane pads



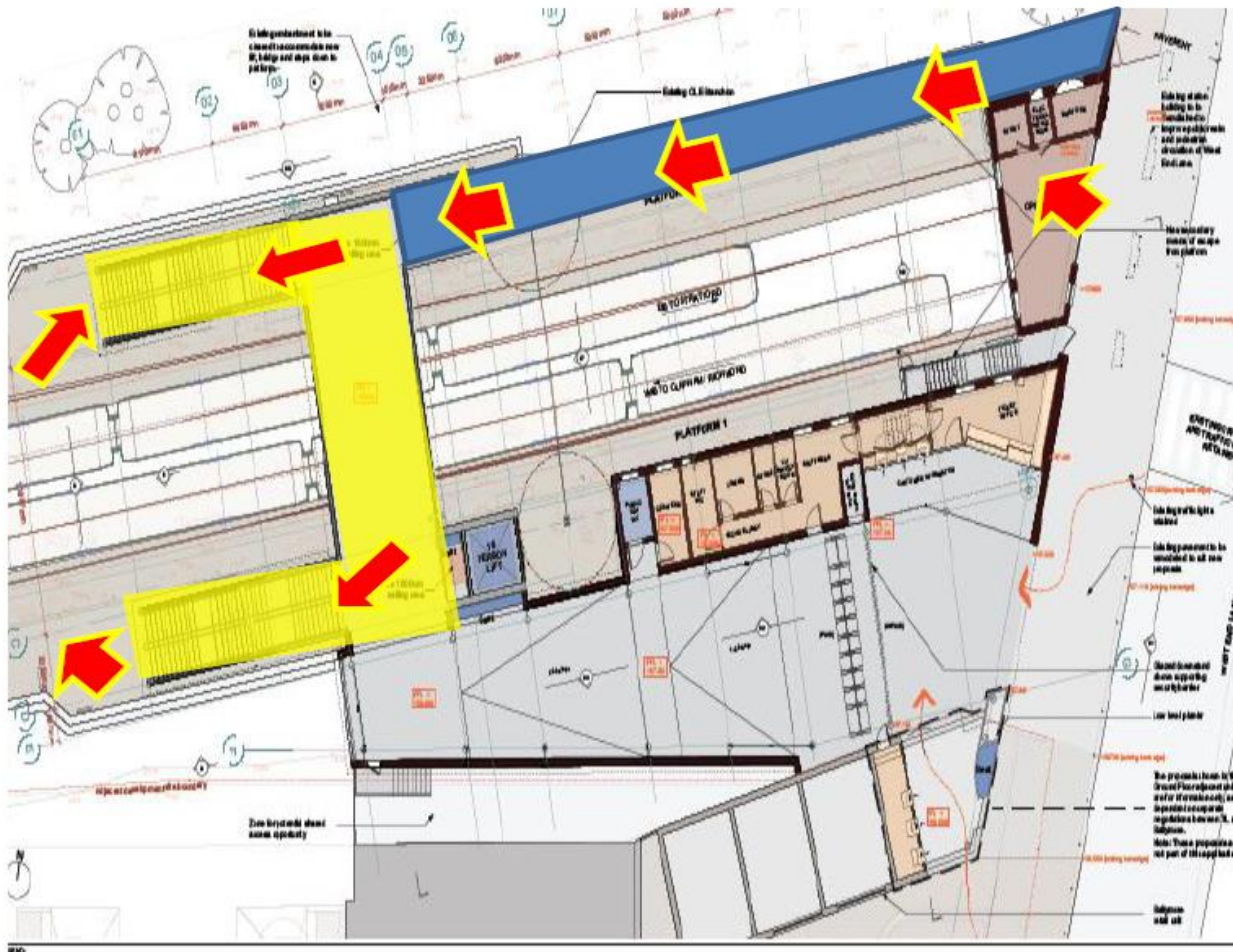
Phase 3: January 2017 – March 2017



- Crane Installed
- Installation of footbridge & stairs



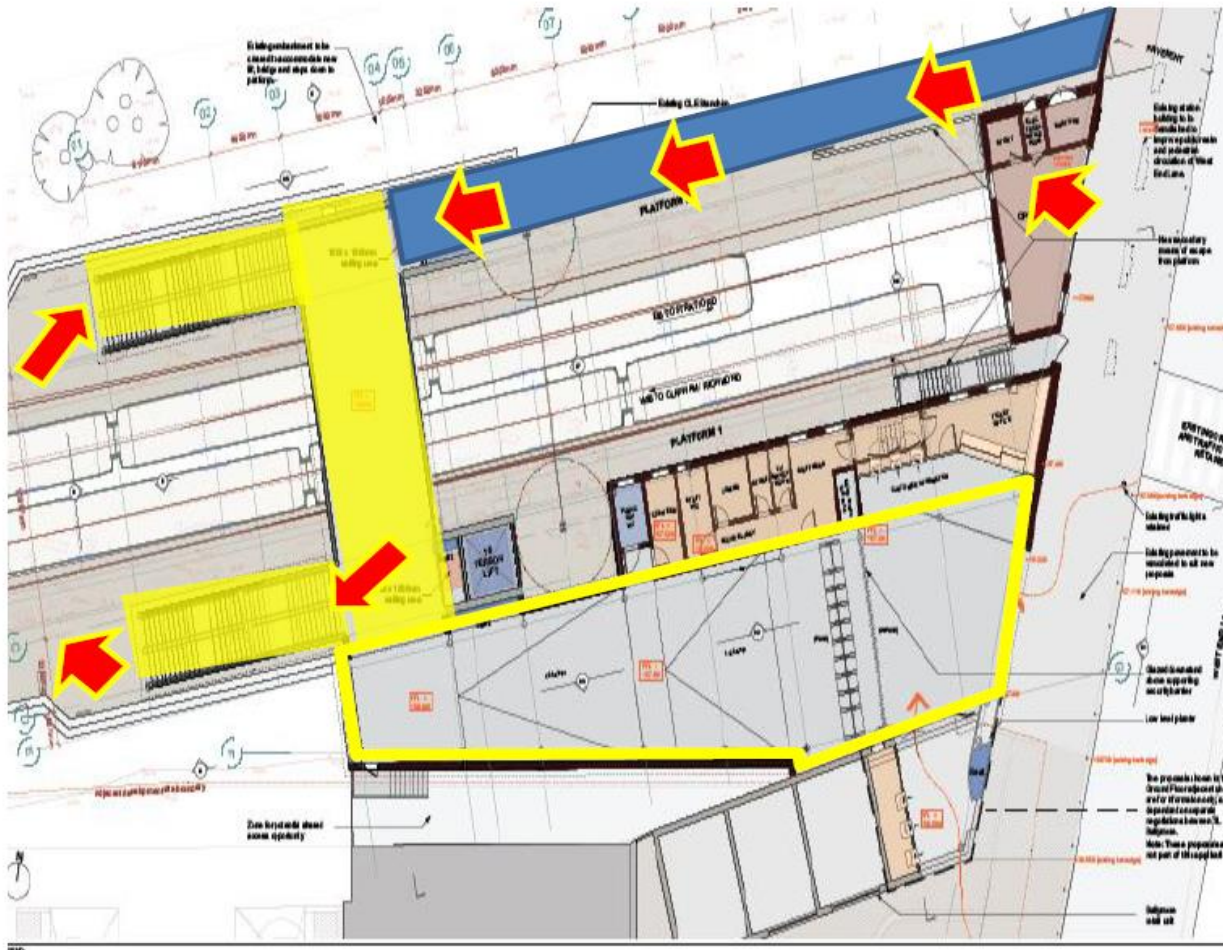
Phase 4: March 2017 – April 2017



- Install temporary footbridge
- Access to platform 1 via new footbridge



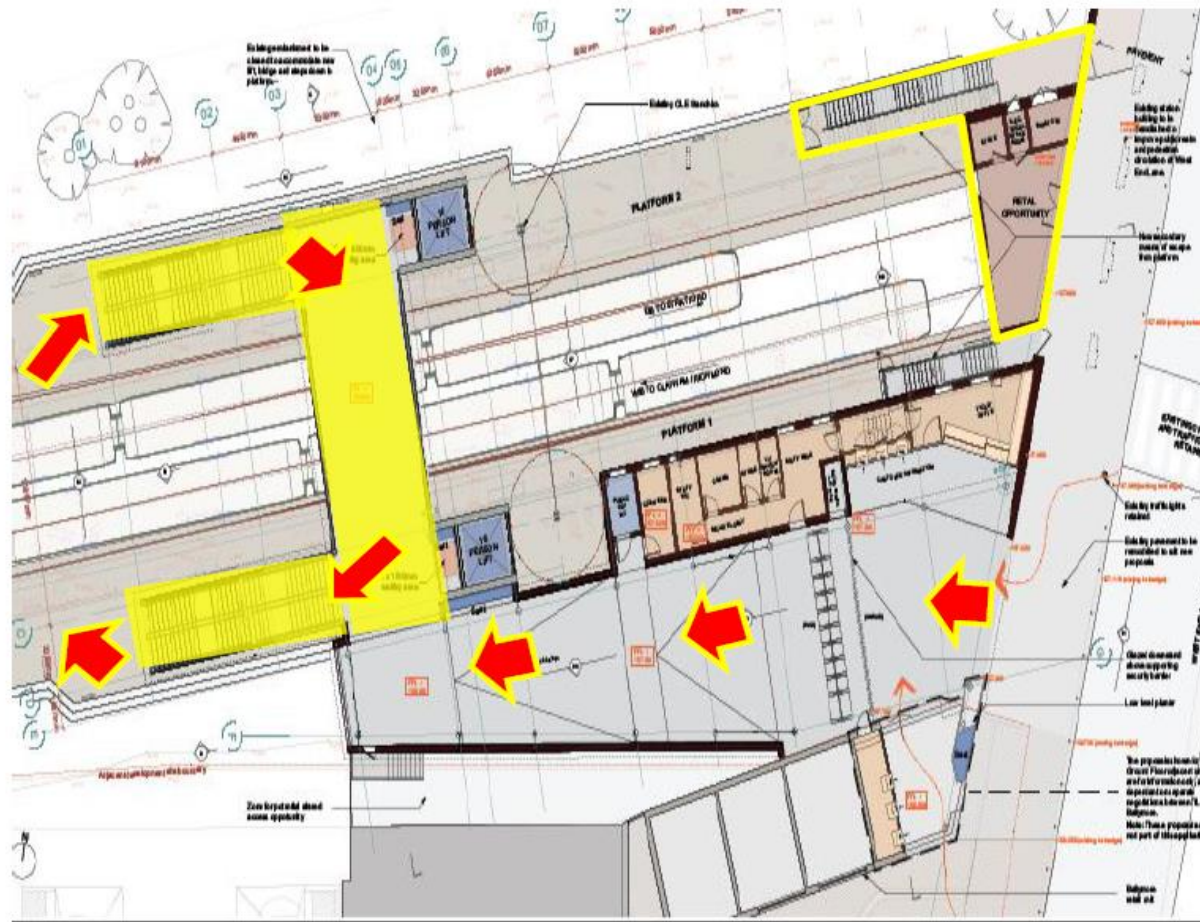
Phase 5: April 2017 – March 2018



- Construct new station concourse
- Install emergency exit from platform 1
- Construct new ticket office & gate lines
- Install new lifts to platforms



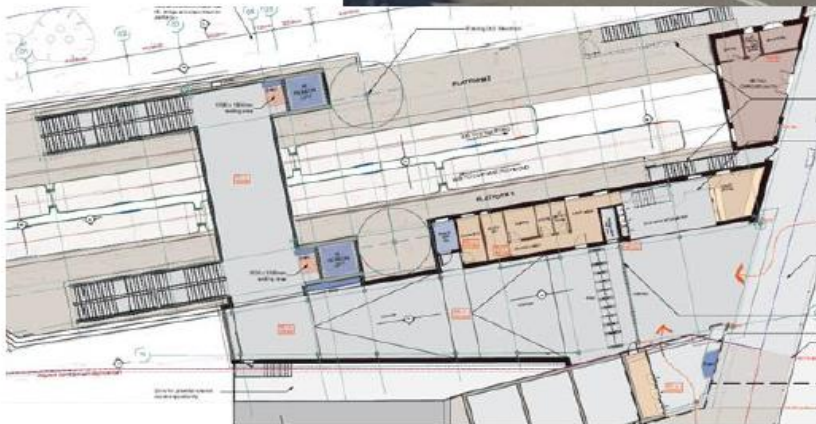
Phase 6: April 2017 – July 2018



- Remove temporary walkway
- Install emergency exit from platform 2
- Widen platform surfaces
- Construct Retail Unit
- Landscape



Completed Station – Summer 2018



Appendix B

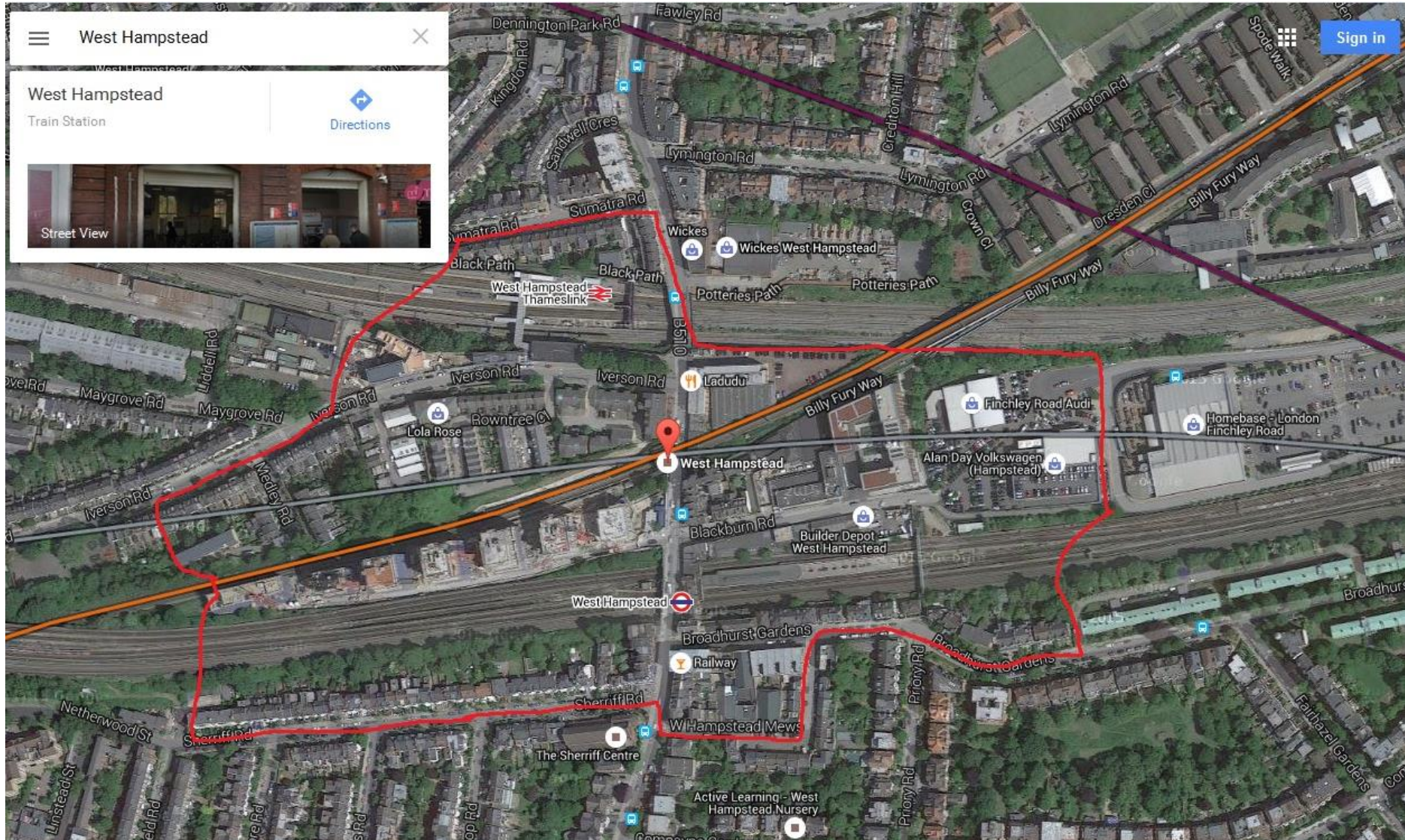
Community Working Group Consultation.

Representatives from the West Hampstead Station Project Team have attended the Community Working Group Meetings for the adjacent Ballymore development since December 2015.

On 4th April a *letter (Letter below)* was sent to residents in the vicinity of the station (*Area map below*) and local ward councillors inviting them to join the West Hampstead Station Community Working Group Meeting.

The inaugural Community Working Group Meeting was held on 24th May 2016 (*minutes, attached below*). This was attended by 10 residents and business owners, Cllr Rosenberg, Transport for London and Buckingham Group Contractor. A draft Construction Management Plan was issued to the group and comments requested by 22nd June, no comments have been received.

The Community Working Group agreed to meet every 3 months with the next meeting planned for August 2016.



Transport for London
London Overground



4 April 2016

Dear Resident,

West Hampstead Station Improvement Works

Transport for London (TfL) is carrying out works to improve accessibility and capacity across the London Overground network. TfL will shortly begin work on a new building for the West Hampstead London Overground station. The new building will have a new, wide footbridge with lifts to both platforms, providing step-free access throughout the station. The new station will also be larger than the existing building and accommodate the expected growth in passengers until 2031. The new station will also be set back, providing a wider footway at the entrance.

Construction works are due to start in summer 2016 and continue until summer 2018. For the period immediately prior to construction and while construction work is underway, we will establish a **Community Liaison Panel**, where our project team will be able to gain vital feedback from residents on any issues they may wish to raise on the construction process. The meeting will be held on a bi-monthly basis during the lead up to the project and at key stages during the construction period. The first meeting is set to take place in April.

Where possible works will be carried out during the day but, regrettably, some activities will need to be carried out at night for safety and operational reasons. We apologise in advance for any disruption caused by these essential works and would like to assure you that TfL is firmly committed to working with local residents, businesses and the London Borough of Camden to ensure the impact of our works is kept to an absolute minimum.

Should you be interested in sitting on the Community Liaison Panel, please contact James Pickard for further details by phone on **07808247642** or email jamespickard@tfl.gov.uk

Thank you for your patience and understanding while this essential work is carried out. We look forward to hearing from those wishing to be a part of the panel.

Yours faithfully,

Lorraine Johnson

Project Manager Transport for
London Page 2 of 2



West Hampstead station redevelopment – Community Liaison Panel (C LP)

Tuesday 24 May 14.00

Meeting Minutes

Attendees

James Pickard – Stakeholder Communications TfL - J P
Lorraine Johnson – Project Manager - LJ
Stella Whyte – R S K - S E
Robert Bullman – Buckingham Group - R B
Alan Watson – NDF – A Wa
Adam Webster- Builder Depot A We
Terry Daly – Builder Depot - TD
Cllr Phil Rosenberg- Ward Councillor - PR
Christine Brice – Local Resident - C B
Anne Heyman – Community Representative - AH
Geoff Fields - Local Resident - GF
Stephan Jones- Local Resident -S J
Keith Moffitt - Local Resident –K M
Candice Temple – Local Resident - C T

- LJ delivered presentation of project scope
- GF noted that signage around the station may be an issue.
- AWA noted that the pedestrian crossing facilities on West End Lane outside of the station require further investigation. The positioning of the crossing and sequencing of the lights were not appropriate and could be potentially dangerous for those crossing the road.
These comments will be raised with Camden council as the crossing and road are maintained by them.
- S J & C W note the timing and level of noise of the piling has potential to be disruptive to nearby residents.
R B states that the contractor (Buckingham Group) will aim to do as much of the noisy work as possible, during the day time so as not to disturb local residents during the night.
- The timing of the next C LP meeting was discussed with it noted that a similar group during the nearby construction by Ballymore met every 3 months at 10am on a weekday.
- TD asked about the delivery of construction materials and stated that the Ballymore construction vehicles park on Blackburn Road and stay there all day.
R B stated that Buckingham will not be delivered on a just in time basis, it was noted that the station site is considerably smaller than the Ballymore site and there will be less deliveries

-
- PR asked that there be an agreement with the contractor to not schedule any deliveries during rush hour periods as the area around the station is already very congested.
R B noted that deliveries are scheduled between 10.30 and 4

 - The installation of the footbridge was discussed with it being noted that the footbridge will be delivered by road, in large sections and be constructed over a weekend.

 - It was noted that the new lifts will be installed by April 2017.

 - GF asked if we were keeping any of the existing station or using any materials from it.
R B noted that the brickwork from the existing station is not in a fit enough condition to be utilised in the development on the new building.

 - It was noted that TfL would detail a definitive landscaping plan to replace some of the lost vegetation from the station area.
TfL have taken this action on and will look to develop this plan.

 - It was noted that bicycle racks will be installed in front of the station by Camden council.

 - LJ issued the draft Construction Management Plan which sets out how the project will be delivered including proposed times for deliveries and routes to site. LJ requested that the CWG review the plan and return any comments by 22nd June James Pickard should be the first point of contact if anyone has any queries on the Construction Management Plan.

 - Next meeting provisionally planned for 9th August at 18:00, to be held in new site compound on Blackburn Road. Invites to be sent confirming date, time & venue