MAREK WOJCIECHOWSKI ARCHITECTS
LONDON

4 Tavistock Place, London, WC1H 9RA

Construction Management Plan

Construction Management Plan
Revision A 05/02/2015
Appendix G

Contents

Appendix

1. SCOPE OF WORKS

Introduction

Marek Wojciechowski Architects have been instructed by GFZ Developments to prepare a full planning and listed building application for the property located at 4 Tavistock Place, WC1H 9RA. The site consists of a 6-storey property, arranged over lower ground to fifth floor levels. The building has a use Class B1 (Office).

The proposal is summarised as follows;

1. Change of use from Class B1 (Office) to Class C3 (Residential)
2. Internal reconfiguration throughout
3. Alterations to the fenestration of the rear façade
4. Excavation to rear to provide additional accommodation
5. Extending the existing mansard roof element
6. Existing lift to be extended to service fifth floor, with associated overrun to roof

2. PROGRAMME

2.1 Estimated Construction Programme

The table below outlines an estimated construction time of approximately 60 weeks.

Phase	No. of Weeks	Average no. of vehicles per day	Approx. no. of workers on site
Demolition and Strip Out	5	2	10
Underpinning & Installation of new beams	10	4	15
Excavation and construction of basement level	15	6	20
Non-structural and internal works	30	4	20

2.2 Hours of Work

Working hours on the site will be as below:

- Between 08.00 and 18.00 Monday to Friday.
- Between 08.00 and 13.00 on Saturday.
- Not at all on Sundays, bank holidays and public holidays.

Basement excavation work will only be:

- Between 08.00 and 18.00 Monday to Friday.
- Not at all Saturdays, Sundays, bank holidays and public holidays.

Noise will be kept to an absolute minimum wherever possible and will not take place outside the above working hours.

2.3 Site Set-up

Before commencing any works; a hoarding will be installed at the front of the building, in line with the adjacent light wells (refer to Appendix 1; Construction Management Plan Diagram).This will allow the site to be secured, provide a safe working area and will help to reduce noise transmission and dust escaping into the street.

All hoardings will comply with the general requirements set out by Camden and the construction project manager will be responsible for ensuring that the appropriate temporary structures licenses are in place.

In order to minimise disruption to local traffic, it will be necessary to partially suspend the parking bay on Herbrand Street, the closest to the site for loading and unloading. This will be used in turn and is to be co-ordinated by the construction project manager. There will be strictly no long stay private or construction traffic parking in this bay or on the surrounding streets. (Refer to 7.4 Traffic Management and Appendix 1; Construction Management Plan Diagram)

It is anticipated that a mini digger and conveyor belt will be used to carry the spoil through the front of the building directly, over the gantry at first floor level and into a 'wait-and-load' skip which will be waiting on the roadside adjacent to the site. Wait-and-load skips will operate between the hours of 10.00 and 14.00 Monday to Friday. Approximately 140m^3 will have to be removed from the site.

Throughout each construction phase the welfare facilities and site office will be set up at the front of the main building on the first floor; away from the primary means of access for loading and unloading materials and where the least demolition will occur. This is subject to review during the latter stages of non-structural and internal works by construction project manager when access to this area is required.

3. PROJECT HAZARDS/RISK ASSESSMENTS/METHOD STATEMENT

Prior to operations each Sub-contractor is required to submit to site management documentation of any known hazards, risk assessments and method statements.

Suitable and sufficient risk assessments and method statements will be produced to minimise the H&S risk to operatives and members of the public during the site operations.

Sub-contractors' method statements will be reviewed by the site management to ensure that risks and safe method of works proposed are suitable to the activities defined in the project. When reviewing a sub-contractor's method statement, a 'Method Statement Checklist' will be used, to ensure that the control & review procedure has been carried out & assessed where necessary & appropriate amendments made if necessary.

4. NOISE, VIBRATION, DUST, DIRT CONTROL MEASURES DURING EXCAVATION

Noise monitoring:

Noise levels from construction during the working day will be monitored against indicative 75dB action level and in line with the recommended levels in BS 5228-1: 2009.

Noise levels will be monitored during construction as follows:

- Noise and Vibration monitoring will be carried out regularly, as well as in response to requests/complaints or any new activities that have the potential to generate significant noise.

- Checks will be made on method statements to ensure that the best practice described in the standards is being applied in the method and site activities.

Noise and Vibration Mitigation:

All hand operated tools and equipment shall be effectively silenced and will bear the manufacturers 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 specified for adoption by the contractor, and its sub-contractors.

- Any noise emitting equipment on site that is required to run continuously will be housed in a suitable acoustic enclosure.

- Machines in intermittent use will be shut down in the intervening periods between works or throttled down to a minimum.

- The use of and noise from, percussive tools with be limited as far as reasonably possible.

- The external scaffold at the rear of the main building will be fully encapsulated in Monaflex sheeting which will reduce the transfer of noise.

- The hoarding erected at the front of the site will also help to reduce noise transmission.

- Excavators will be fitted with hydraulic pulverisers and shears whenever possible in preference to hydraulic hammers.

- All plant and machinery will be fitted with silencers and where hydraulic hammers are used they will be fitted with bafflers as per 855228-1: 2009.

- Sound reduced compressors will be used and/or fitted within acoustic enclosures where necessary.

- The positioning of compressors will also be taken into consideration to reduce noise transfer to neighbouring properties.

- Pneumatic tools will be fitted with silencers or mufflers

- Electrically powered tools will be used as opposed to petrol/diesel powered, wherever possible.

- Care will be taken when erecting or striking scaffolds to avoid impact noise from banging steel.

- No personal audio equipment will be allowed on site e.g. radio.

• Acoustic insulation shall be installed to the party wall during the first phases of the works.

Visual assessments on dust levels will be taken on a daily basis by the works manager and recorded in the site diary.

Mitigation Measures:

Best Practice Means (BPM) will be used to ensure that dust does not cause nuisance. Where dust is considered to be a risk during a specific site activity, mitigation measures will be included in the task specific method statement for the work. The controls listed in the method statement will be assessed on site to ensure they are adequately carried out and effective. The controls will be briefed to the engineers and operatives to ensure they are aware of mitigation measures and controls to be employed.

During demolition the following controls will be implemented:

• Monaflex sheeting will be placed to screen the demolition where possible.

• A soft strip of materials will be carried out prior to structural demolition.

• Materials will be removed from site as soon as possible for appropriate recycling and disposal.

• Drop heights will be minimised as far as possible.

• A water spray will be used to control dust.

Mitigation measures to ensure dust is kept to a minimum will include the following:

• Large stockpiles of materials will be avoided and are not anticipated due to the nature of the project and the restrictive available area during the initial lower ground excavation.

• Use dust screening where possible.

• Damping down the areas with water to suppress the dust whilst ensuring the application does not create excessive mud.

• Construction plant will be well maintained and operated to minimise emissions to air.

• Good housekeeping including the regular sweeping of floors will be maintained and debris disposed of in enclosed skips.

• Outer surfaces of skip and surrounding area road will be washed before leaving site as necessary.

• Equipment and techniques such as dust extractors will be used to minimise dust when using cutters and saws.

• Portable knapsack dust suppressors will be employed on floors.

• The Environmental Advisor will brief operatives on good practice and will carry out regular inspections to ensure that best practical means is employed across the project.

• Wind conditions will be taken account of when arranging activities that are likely to emit aerosols, fumes, odours and smoke.

Materials will be pre-fabricated and pre-cut off site where possible to minimise dust from cutting and grinding activities. If cutting and grinding cannot be mitigated off site then water suppressant systems and or local exhaust ventilation will be employed.

5. THE STORAGE OF PLANT AND MATERIALS

The materials will be stored on the restricted site in designated storage areas, Due to the limited storage space on site the majority of the materials will be delivered on a "just in time" basis and loaded out directly to the intended work face.

- When storing materials and plant on site a location will be chosen that minimises the risk of our materials and plant being damaged, stolen or vandalised. Materials will be stored neatly on flat solid ground to avoid damage and loss.

- Materials will be protected from damage by the elements by keeping them in their packaging for as long as possible.

- We will also ensure that there is good access to the storage area. This will help minimise damage caused to materials from mechanical handling equipment and people climbing over materials trying to get what they need.

- All waste packaging and redundant material etc. will be removed immediately.

- The delivery of materials and plant will be supervised to ensure correct location and method of storage.

- Workers will be encouraged to check that a material is fully used prior to starting a new batch and return to storage materials that have not been used. Off-cuts will be used where possible and formwork re-used as often as practically possible.

- Plant which uses fuel will be stored on drip trays.

- All small plant tools will be stored in metal locked tool boxes positioned at various locations on the site depending on the work face at the time.

- Due to the restricted site space compressors / drip trays will be positioned at the rear of the site where possible in a safe manner away from the welfare area.

- Excavators / Piling rigs will be positioned at their prospective work face.

All material deliveries will be in accordance and adhere to the Traffic Management Plan. (Refer section 7).

All plant brought on to site will be inspected prior to use. Evidence of last test and all statutory test certification will be submitted by the Sub-Contractor before commencement.

Plant will be recorded on a 'Plant Register' or through a software system and will be regularly reviewed and updated.

Maintenance and changing of abrasive wheels will be done by a competent person and recorded on 'Abrasive Wheel Register'.

All lifting equipment will be inspected in accordance with the relevant regulations.

Mechanical Plant operation is to be only by a nominated competent person.

Mechanical plant or equipment will be inspected in accordance with the relevant regulations. Inspections will be recorded on the suitable mechanical plant inspection form as identified in the company Plant Equipment Maintenance procedure.

6. NEIGHBOURLY ISSUES

The Construction Project Manager will be responsible for communicating with all neighbours prior to commencement and periodically throughout the project. In particular, weekly contact shall be maintained with neighbouring properties as necessary, newsletters / leaflets will be posted when certain main activities are planned.

The Contractor will enrol onto the Considerate Contractors Scheme for the project and abide by the strict principles involved.

Environmental management, sustainability issues and the sensitive particular neighbourhood issues will be explained and communicated to staff and sub-contractors on commencement of the site works.

Means of communication will include:

- Pre-start meeting for sub-contractors
- Site Inductions
- Site training to personnel.
- Circulation of key personnel contact telephone numbers
- Regular site meetings will be used as the basis for correspondence and information flow regarding aspects of the project. Neighbourly issues will form an important part of the agenda.

7. TRAFFIC MANAGEMENT PLAN

7.1 Introduction:

The Traffic Management Strategy for the project is one of minimising the interface wherever possible between third parties and site traffic and reducing the number of deliveries where practicable, including the staging of deliveries such that the volume of traffic is kept as even as possible avoiding peaks and controlling vehicular movements on the project.

This document provides practical guidance on the planning of these issues, the control measures that will be implemented and highlights the points for consideration and necessary actions during the construction duration.

Avoiding hazards and controlling the risks arising from the use of the vehicles in construction work is essential.

- Planning and managing both vehicles and pedestrian routes
- Safe driving and working practices
- Protection of the public
- Adequate vision and lines of sight
- The provision of signs and barriers
- Adequate parking and off-loading storage areas

7.2 Main Objectives

It is imperative that the Safety of the general public and neighbours is treated with high priority at all times.

Relationships with Neighbours are of the utmost importance. Their enjoyment of the environment is paramount at all times.

Fire and Emergency procedures for adjacent properties are not to be compromised.

7.3 Responsibilities

a. Contacts

Telephone numbers for the Main Contractor, the Basement Contractor the Safety Advisor and the Contracts Manager will be available 24 hours a day.

b. Communication

The Construction Project Manager will be responsible for communicating with all neighbours prior to commencement and periodically throughout the project. In particular, weekly contact shall be maintained with neighbouring properties as necessary, newsletters will be posted when certain main activities are planned.

c. Site Supervisor

- The Site Supervisor will be the responsible person with regard to traffic safety and shall ensure that all Operatives comply with the Traffic Management Plan and that any works that affect the public highway shall comply with the DfT Transport Traffic Signs Manual: Chapter 8.

- The Site Supervisor will be responsible for policing the site entrance gate for all authorised vehicles and personnel.

d. Site Administration

Responsibility for construction traffic movement relating specifically to the basement construction is that of Basement Contractor Site Supervisor who must:

• Ensure that sub-contractors and suppliers adhere to procedures set out in the plan by liaising with them and organising deliveries at suitable times.

• Prevent unauthorised parking and the congestion of local traffic.

• Ensure the roads are kept clean in the immediate vicinity that may be caused by site traffic

• No "laying-up" in adjacent roads is allowed.

7.4 Traffic Management

Route maps will show the proposed routes that all contractors and deliveries will be directed along to gain access to the site. Once materials have been delivered, they will be transferred to the storage areas on site as required.

The effectiveness of the Traffic Management Plan must be assessed at progress meetings and any issues rectified by amending the plan as necessary.

Under no circumstances will Lorries be allowed to "lay-up" in surrounding roads and this will be controlled using the following measures:

• The Basement sub-contractor, will operate their own delivery and "muck away" vehicles with directly employed operatives.

• This enables the vehicles to be well controlled, eliminating queuing on public roads and preventing access by third parties.

• Deliveries will be limited to out of peak hours

a. General Site Traffic Access Arrangements

• A route Map will be issued to all sub-contractors and suppliers with the specific Traffic routes at the order stage.

• A delivery booking system will be instigated on site.

• The traffic procedures will be explained to all site personnel in the initial Site Induction when first starting work on the site.

• Directional Signage will be placed if necessary and as approved with the Local Authority.

• General Health & Safety signage will be used around the off-loading within the site

• Speed limit signs and additional warning notices will be placed on clear view on the hording.

• All Plant and delivery vehicles will be guided into the designated parking bay by qualified banksmen, all wearing appropriate Personal protection equipment incl. hi-visibility jackets / vests.

• There will be no parking on site.

• Any discourteous behaviour or non-compliance of the site procedures will result in the drivers being removed from the site.

• Regular inspections of the road conditions will be carried out.

• Companies and lorry drivers will be contacted via mobile phone to control one lorry at any time outside the site.

7.5 Pedestrian Routes & Fire Exits

Regulation 37(2) of the Construction (Design & Management) Regulations 2007 states: "Suitable and sufficient steps shall be taken to ensure that, where any person may be endangered by the movement of any vehicle, the person having effective control of the vehicle shall give warning to any person who is liable to be at risk from the movement of the vehicle". This will be achieved be ensuring:

• Pedestrian routes and fire exits will be wide enough to safely accommodate the number of people likely to use them.

• Pedestrian routes and fire exits will be kept free from obstructions.

• Pedestrian routes and fire exits will be clearly and suitably signed.

• Pedestrian routes and fire exits will have a clear view of traffic movement at crossing points and at gates which lead onto traffic routes.

7.6 Traffic Routes

The Traffic Management Plan requires that the works will be organised in such a way that the traffic routes are suitable for the passage of vehicles using them with regard to locations and the width of lanes. Traffic routes shall not be approved unless:

• Vehicles can use the traffic route without causing danger to themselves or other road users.

• Pedestrian access or egress is sufficiently separated from vehicle routes as this will enable the pedestrians to see any approaching vehicle or item of plant.

• There is sufficient separation of vehicles and pedestrians or where this is not practicable or in an emergency there are other means for the protection of others.

• There are effective means of warning of the approach of any vehicles.

Vehicles shall approach the site by travelling west along Tavistock Place, and pull into the designated parking bay on Herbrand Street under instruction from two the trained banksmen.

Loading/unloading of and goods will take place under the instruction of a trained banksman. Any materials will be moved immediately onto site from the suspended parking pay on Herbrand Street. Smaller hand carried deliveries may be carried through the front of the building at ground floor with the appropriate precautions in place. On leaving, vehicles shall pull out of the designated bay and continue south along Herbrand Street.

7.7 Vehicle Analysis

Anticipated traffic movements and the size and type of vehicle will vary throughout the programme period. As a general rule, the number and size of vehicles will be greater during the beginning of the project while the majority of the groundworks are being completed. Traffic will decrease as the last of the excavated material is removed.

Phase 1:

- The enabling work / demolition phase will be carried out by the contractor first to enable access into the site for underpinning and excavation works etc. to commence.

- 2 loads of concrete will be delivered daily.

- Concrete delivery and spoil disposal will be carried out at different times to prevent any queuing vehicles.

Phase 2:

- Underpinning works are estimated to take 10 weeks. It is estimated that this will consist of 2 loads per day of spoil disposal and 2 loads per day of concrete.

Phase 3:

- We expect the excavation phase to last 15 weeks. During this period it is estimated 3 skips of muck spoil will need to be disposed of each day.

- Lorries will only be called to site when the operatives are ready to avoid queuing on local roads.

- Spoil removal or concreting will be completed separately to avoid congestion.

7.8 Site Entrances

The only access to the site is via the hoarding at the front of the building. This will also serve as the exit.

There will be 2 banksmen present at all times to ensure no pedestrians are at risk when using the footpath immediately outside the site at the same times as deliveries taking place. This will be backed up by the use of adequate signage as necessary.

Deliveries/ vehicle movements will be planned outside of peak times such as when persons are travelling to and from work to minimise the disruption throughout the project.

7.9 Site Security

The hoarding shall be kept closed and locked from the inside at all times when vehicles are not loading or unloading.

- The doors will have the necessary lighting and signage as required by Camden Council.

- The doors will be maintained as necessary to keep the Site frontage as presentable as possible throughout the contract duration.

Signage will be fixed to the door, displaying the Project Manager's contact details along with any relevant project specific signage, such as "Site Safety" etc.

7.10 Spoil Removal

Excavated material will be moved to an 18 cubic yard wait-and-load skip place to the front of the site.

The Site Supervisor shall check and ensure that the highway is clean and a road sweeper will be used at set intervals if necessary.

Concrete wash out will be controlled and carried out to a dedicated skip to prevent pollution and discharge to the local drainage system.

8.0 WASTE MANAGEMENT PLAN

8.1 The Waste Hierarchy

Waste management starts with resource efficiency, using raw goods which have been purchased wisely. Our waste management incorporates The Waste Hierarchy and prioritises all such measures to:

- Minimise the generation of waste and achieve Zero Waste to Landfill.

- Increase the use of recycled and recovered materials.

- Reuse materials on site, wherever possible.

- Segregate non-hazardous waste for recycling, wherever possible.

• Segregate hazardous waste.

• Ensure the waste collected on site is efficiently managed to enable recycling, recovery or the best disposal option.

In order to manage waste effectively on site we also will:

• Order the correct amount of materials to be delivered when needed.

• Ensure that materials delivered to site are not damaged or unusable.

• Reduce the amount of packaging, wherever possible.

• Ensure that waste is handled and stored correctly.

8.2 Segregation on site

Where possible, the Project team will segregate non-hazardous waste material into separate waste streams on site. When segregating waste, the Project Team will:

• Use appropriate containers.

• Label container clearly using appropriate signage.

• Allocate designated areas for container in suitable locations.

• Empty containers regularly to prevent lack of space and possible contamination.

• Monitor waste containers to ensure that contamination of segregated waste does not occur.

• Train site personnel via toolbox talks and the site induction programme.

• Enforce the segregation scheme using appropriate personnel, waste champion.

If there is a lack of space on site to achieve segregation of non-hazardous waste, the Project team will work closely with the waste management contractor to ensure that the mixed containers are sorted for recycling at the waste facility and that high recycling rates are subsequently achieved.

8.3 Hazardous Waste

The Project Manager or waste champion will ensure that the hazardous waste is segregated, stored safely and that measures are implemented to avoid contamination of other waste.

Less than 500kg hazardous waste is proposed to be produced.

No electrical equipment is disposed of directly from site. All electrical equipment, such as fridges, microwaves, computers and Visual Display Units (VDU) will be taken to Mitcham Consolidation Centre for testing and disposal according to the WEEE directive and current legislation.

As far as we are aware the existing property has no hazardous materials stored.

8.4 Duty of Care, EPA 90

The Duty of Care is set out in section 34 of the Environmental Protection Act 1990 and associated regulations. It applies to anyone who is the holder of controlled waste.

In order to ensure compliance with the Duty of Care the following practices will be followed:

- A copy of the waste carrier licence of the waste carrier company will be obtained.

- A copy of the environmental permit or waste management licence of the Waste Transfer Stations (WTS) where the waste is segregated will be obtained.

- A copy of the environmental permit of the landfills where the waste from the WTS is finally Disposed will be obtained.

- It will be ensured that waste transfer notes and hazardous consignments notes are completed and signed to include:

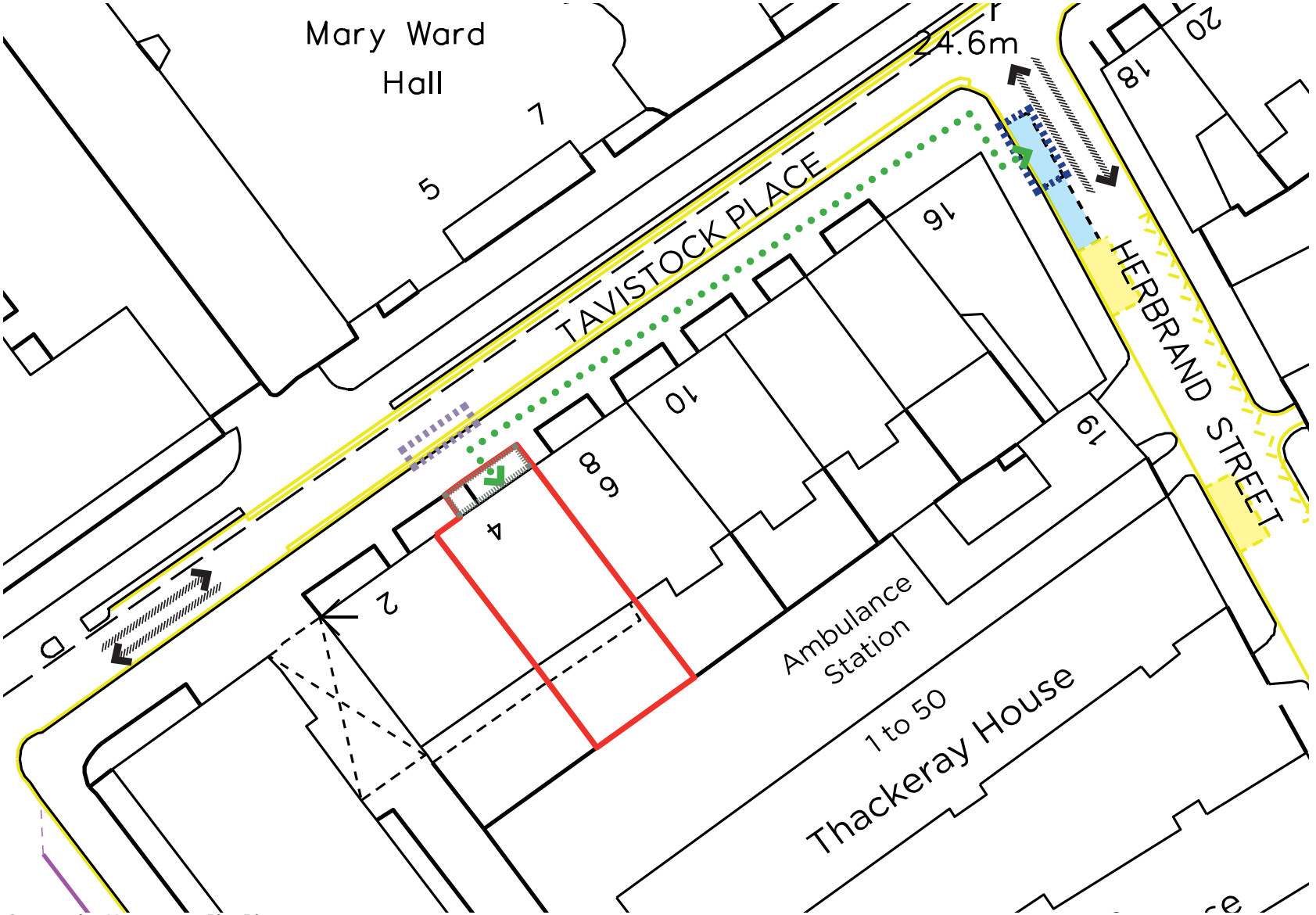
    - ✓ Producer of the waste.
    - ✓ Premises code.
    - ✓ Name, address and postcode where the waste is going to be taken to.
    - ✓ Description of the waste.
    - ✓ The appropriate six-digit European Waste Code (EWC), e.g. Construction Mixed Waste.
    - ✓ Quantity (total weight) in kilograms.
    - ✓ The chemical/biological components of the waste.
    - ✓ Physical form (gas, liquid, solid, powder, etc).
    - ✓ Container type, number and size.
    - ✓ Time, date and place site address of collection.

- Copies of waste transfer notes and hazardous consignment notes will be kept for 3 and 5 years respectively.

- Payments will be linked to final copies of the waste transfer notes and hazardous consignment notes.

- It will be ensured that staff receives appropriate training.

- Make sub-contractors aware of the waste site procedures



Construction Management Plan Diagram

Appendix 01

KEY

- Direction of travel
- Existing car parking spaces
- Existing ambulance parking spaces
- Proposed suspended parking bay - deliveries
- Proposed wait-and-load skip
- Proposed hording