

17, 25 & 27 Ferdinand Street, Camden **Construction Traffic Management Plan**

Final January 2015





Revision Schedule

Construction Traffic Management Plan

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Appendices

- Appendix A Indicative Site Layout
- Appendix B Construction Management Programme
- Appendix C Site Tracking Drawings



1 Introduction

1.1 Scope of the Works

- 1.1.1 The works that are the subject of this Construction Traffic Management Plan (CTMP) involve the extension, part-demolition and redevelopment of the existing structures to accommodate new C3 residential use at 17, 25 and 27 Ferdinand Street, London, NW1 8EU.
- 1.1.2 The proposed development will house twenty new residential flats on all floors by way of replacement of the attic space plus constructing additional floor to accommodate the proposed residential space. The top floor extension construction is proposed to be built with the use of materials in keeping with the existing building. Thus the lower floor of the new rooftop extension will be built in brick to match the existing building design. Lightweight glass extension will be constructed at the upper floor which is set back from the face of the existing brick building and the parapet edge.
- 1.1.3 The proposed development is car free with provision for cycle parking for residents and office staff on the ground floor of the building and which will be accessed using the first pedestrian entrance located prior to the archway. A total of seventeen Josta 2-tier cycle stands will be provided accommodating 34 bicycles for residents.
- 1.1.4 The plan shown below shows the development outline. Further details of the proposed development and associated servicing and access arrangements can be found in the Transport Statement by URS Scott Wilson submitted to support the planning application for this development.

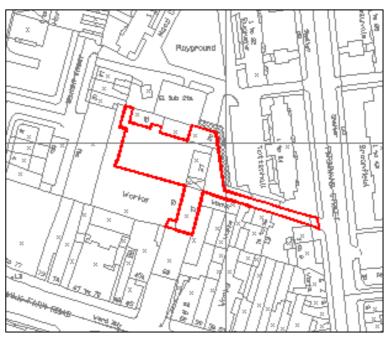


Figure 1.1 Existing Site Location and Application Boundary (Not to Scale) Source: © Crown copyright, All rights reserved. License Number 100020449



1.1.5 The construction of the proposed development follows Modern Methods of Construction (MMC) which provides a route to improve construction from a sustainable perspective. MMC encourages innovative construction methods which reduce construction periods, reduce on-site risk and improve quality by a number of methods including off-site manufacturing.

1.2 Purpose of the CTMP

- 1.2.1 The CTMP describes the proposals to safely manage vehicular, cyclist and pedestrian traffic during the construction of the development proposals.
- 1.2.2 The purpose of this CTMP is to achieve the following:
 - Provide details of the Construction Traffic Management Plan to be applied to provide a safe environment for traffic, road users, pedestrians, cyclists and construction staff;
 - Ensure that any impacts on road users are mitigated;
 - Ensure that access is maintained for the local resident community and local businesses;
 - Outline how potential construction-related environmental effects identified in the London Borough of Camden's (LBC) 'Sustainable Design and Construction Policy' will be avoided, remedied or mitigated during the construction period.
- 1.2.3 Outline the potential stakeholder issues and set out strategies, systems and procedures to provide for ongoing consultation between local residents and businesses, LBC and Transport for London (TfL).

1.3 Overarching Objectives of the CTMP

- Provision of a safe environment for pedestrians, cyclists, and vehicular traffic through the installation of plans which effectively warn, protect, inform and guide in accordance with best practice guidance;
- Plan and stage all works effectively to minimise delays to pedestrian, cyclist and vehicular traffic, and minimise conflict points on the respective transport networks;
- Enable pedestrians, cyclists, and road users to plan their journeys by providing them with timely and accurate information on programmed traffic management measures;
- Limit obstructions and restrictions to current movement patterns, and where required, provide alternative routes for use by pedestrians, cyclists and vehicular traffic;
- Actively liaise with key stakeholders and ensure they are informed about proposed changes to plan measures and implementation programmes.

1.4 Status of the CTMP

- 1.4.1 The CTMP should be referred to when:
 - Planning works to minimise, remedy or mitigate the effects on the environment;
 - Undertaking all works that may have an impact on the environment;
 - Communicating with Stakeholders.



- 1.4.2 Once the CTMP has been agreed with relevant stakeholders, it will be adopted and developed in further detail by the successful contractor and made available to all parties, so that it can be used as a practical construction and communication management tool and reference source. It should be noted that any future amendments to the information contained within the CTMP must be approved by the LBC and complied with thereafter.
- 1.4.3 An up-to-date CTMP will be kept in the proposed site office and all construction staff will be made aware of its location for reference as required.
- 1.5 Construction Environmental Management System Overview
- 1.5.1 The CTMP forms one of a suite of documents specifying processes and mitigation measures for all potential areas of construction impact. These documents will cover the following areas:
 - Dust and Air Pollution Management;
 - Noise and Vibration Management;
 - Water/Sediment Management;
 - Spoil and Fill Management;
 - Management of Construction Waste and Re-use;
 - Site Hazards and Risk Management; and
 - Incident Management.
- 1.5.2 It should be noted that there are overlaps between some of these documents and the CTMP. For example, construction traffic can contribute to noise and vibration and will need to be mentioned in the relevant construction traffic management document.

1.6 Exclusions

1.6.1 The appointed contractor will prepare a specific Health and Safety Plan for site works to cover all activities within the construction process for the development. This CTMP only considers traffic related risks and management.

1.7 Structure of This Document

- 1.7.1 The remainder of this document is therefore structured as follows:
 - Chapter 2 Provides background on the construction site activities, phasing and layout;
 - Chapter 3 Provides details on the proposed construction vehicle types and volumes;
 - Chapter 4 Provides details on the proposed access for construction vehicles to the site;
 - Chapter 5 Outlines additional considerations for the CTMP;
 - **Chapter 6** Indicates how the CTMP is envisaged to be developed as further information becomes available.
 - Appendix A Contains the drawings of the indicative site layout during construction;
 - Appendix B Contains a Construction Management Programme;
 - Appendix C Contains tracking drawings of the site layout proposals;



2 Construction Site Activities, Phasing and Layout

2.1 Outline Description of Proposed Development

- 2.1.1 The development proposals are for C3 residential units, in the form of redevelopment of the existing buildings, including part-demolition and inclusion of additional floors to the remaining structures. At present 25 Ferdinand Street is a stand-alone structure with numbers 17 and 27 Ferdinand Street being interconnected via an archway over the access road and consequently operating as a single building.
- 2.1.2 The proposal includes the demolition of part of existing 27 and 25 Ferdinand Street and replacing existing roof loft space with dormer windows and roof lights with two new wings linked with a glass structure to the existing 17 Ferdinand Street, finished with the construction of one lightweight level on top, at 17, 27 and 25 Ferdinand Street. The resulting development will thus become a single building.
- 2.1.3 The proposed development will house twenty new residential flats on all floors by way of replacement of the roof attic and the proposed new wings. The top floor extension construction above the remaining 17 Ferdinand Street is proposed to be built in brick along the lower level to match the existing building design and lightweight glass extension at the upper level, which will be set back from the face of the existing brick building and the parapet edge. The development will also include construction of a green roof.
- 2.1.4 It is proposed that the development will be car free with a provision of seventeen cycle stands for residential use, located within the rear service yard.
- 2.1.5 To the rear of the development is a shared service yard area which is also used by 10a Belmont Street, where a mixed use development has recently received planning permission. The two properties share the use a service yard between them.

2.2 Construction Site Activities

- 2.2.1 The proposed activities to be conducted during the construction of the proposed development are as follows:
 - Construction of site compounds and placement of site offices within the remaining floors at 17 Ferdinand Street.
 - Placement of scaffolding around the building, making sure to minimize obstruction to all neighbouring windows including a hoist/service lift.
 - Demolition and clearance of no.25 and part of existing 27 Ferdinand Street.
 - Demolition and removal of roof attic/loft and dormers at 17 Ferdinand Street.
 - Fixing of temporary water-proof roof in the form of Mono-flex onto scaffold.
 - Piling and excavations for foundation under the proposed new building wings.
 - Installation of a luffing crane within the proposed lift shaft located in the new central wing.
 - Haulage operations of spoil and building material to be placed in allocated skips ready for recycling.



- Deliveries of construction materials, and plant equipment.
- Delivery and placement of building materials, structural framework and internal stud work on to roof space.
- Construction of new building wings with matching brickwork and windows including internal flat layouts.
- Construction of a new top floor with light-weight steel frame and glazed panels including internal flat layouts.
- Placement of drainage pipes and M+E services.
- Installation of all internal fixtures and fittings.
- Internal alterations to all floors linking existing remaining commercial floor space to the new proposed wings.
- Final internal decorations and making good any damage to the existing internal areas of the building.
- Reinstatement of local roads, footway and traffic calming measures including complete new landscaping to rear service yard.

2.3 Site Layout

- 2.3.1 Appendix A of this report contains drawings indicating the proposed site layout during the construction period.
- 2.3.2 The access and hoarding arrangements will vary depending on the phase of construction, with site clearance, foundations and construction phases requiring different hoarding arrangements. These are all outlined in separate drawings contained in Appendix A.

2.4 Construction Programme

- 2.4.1 A full construction management programme is provided in Appendix B.
- 2.4.2 The total construction programme will take approximately 19 months to complete. Approximately two months have been allowed for the demolition and site clearance works and a further one month for the laying of foundations and other preliminary work including the tower crane delivery. Approximately 16 months has then been identified for the building construction and completion.



2.5 Construction Stages and Phasing

- 2.5.1 The construction of the proposed development has been divided into three distinct phases, with the final phase made up of four construction stages. The access arrangements for the entire construction period are described in Chapter 4.
- 2.5.2 At all stages of the construction work all construction vehicle movements will be managed by the appointed contractors to minimise disruption to existing businesses within the rear yard. The following phases are envisaged.

Phase 1 – Demolition and Site Clearance

- 2.5.3 The demolition stage of the construction process will include the following:
 - Site establishment / set up
 - Setting out / surveys
 - Dilapidation survey and photos
 - Disconnection of all services.
 - Scaffolding and hoardings around the building parameter.
 - Demolition of existing building in parts and roof loft structure.
 - Instillation of a luffing crane within the proposed lift shaft position located in the new proposed central wing.
- 2.5.4 The site establishment/office would be placed within the existing 17 Ferdinand Street building to be retained.

Phase 2 – Foundations

- 2.5.5 The second phase will focus on the foundations for the new structures. Due to the part-steel structure of the frame, there will be need for piling as part of this phase. This will be carried out with a medium size silent piling rig.
- 2.5.6 Construction of the concrete strip foundation for the new proposed building wings will involve minimum excavation and soil will be removed.
- 2.5.7 The crane will also be delivered and installed in the proposed lift core area.

Phase 3a – Construction Stage 1

- 2.5.8 The first stage of the construction phase includes the majority of the steel frame structure construction for the site including the lift/stairwell cores and the proposed building wings and roof structure. However the construction of the new lightweight steel and glass frame structure link over the access road will be left until the final stage of the construction.
- 2.5.9 All necessary building materials including steel framing, glazing and roof panels will be installed to construct both new building wings and the proposed top floor lightweight extension.



Phase 3b – Construction Stage 2

2.5.10 The second stage of the construction phase includes the construction of all external cladding including brickwork and glass frame panels. All of the bricks, steel, timber and other external materials in this stage will be lifted from delivery vehicles and put into position with the luffing crane positioned within the proposed lift pit located within the new proposed central wing.

Phase 3c – Construction Stage 3

- 2.5.11 The third stage during the construction phase includes the construction of final structural elements of new lightweight steel and glass frame structure link over the drive through. It also includes the construction of all internal walls and partitions, fixtures and fittings, distribution and connections as well as all services including M+E and lift installation
- 2.5.12 Materials required in this stage will be lifted from delivery vehicles and put into position with the luffing crane positioned within the proposed lift pit located within the new proposed central wing.

Phase 3d – Construction Stage 4

2.5.13 The final stage of the construction phase will include the installation of the green roof, removal of scaffolding around the building and landscaping the entire rear service yard and the access way from Ferdinand Street. It will also include final internal fittings and finishes to all commercial, communal and residential areas.

2.6 Hours of Site Operation

- 2.6.1 In accordance with the hours recommended in the LBC 'Noise from Construction Sites', the hours of work are proposed to be:
 - Monday to Friday 08:00 18:00;
 - Saturday 08:00 13:00; and
 - No work to be carried out on Sundays or Bank Holidays unless necessary, whereby a license will be obtained from London Borough of Camden.
- 2.6.2 It is proposed that to minimise traffic impact and help vehicle movements on the Ferdinand Street residents, all deliveries to be limited to between the hours of 10.00am 4.00pm.
- 2.6.3 Should there be any requirement for works to be carried out outside the construction hours outlined above, the construction site management will approach the LBC and TfL prior to this taking place.

2.7 Crane Use and Location

2.7.1 The use of a crane during the construction will be required to assist construction. A luffing crane will be employed during construction to specifically avoid the need for over sailing of the adjacent highway and buildings, since the jib angle can be changed to reposition the load at various radii, without the remainder of the jib over sailing neighbouring properties. When compared to other tower crane types, it is also usually possible to construct a lower tower height when using luffing cranes.



2.7.2 The luffing crane will be erected within the lift core of the proposed development following the excavation of the site as in Appendix B. The crane will be lifted in sections both into and out of the site via the Ferdinand Street access. Once the crane is no longer needed, it will be dismantled and removed from the site on a low loader. All necessary licences required for the erection and operation of the tower crane will be applied for.



3 Construction Phase Access

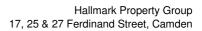
3.1 Heavy Goods Vehicle Types

- 3.1.1 A number of types of heavy goods vehicle will serve the site. These are expected to include the following:
 - Light Vans used by individual trade contractors, typically during the final fit-out of the proposed development (approximately 7.2m long and 2.2m wide).
 - Rigid Skip Lorries for removal of demolition waste (approximately 7.5 meters long and 2.5 meters wide);
 - Tipper Bodied Rigid Lorries for removal of demolition waste and spoil from the site (maximum of approximately 10.2 meters long and 2.5 meters wide);
 - Box or Flatbed Rigid and Articulated Lorries for the delivery of some plant and other construction materials (maximum 16.5 meters long and 2.5 meters wide); and
 - Articulated Low Loader for the delivery of some construction plant (maximum 16.5 meters and 2.5 meters wide).
- 3.1.2 The drawings in Appendix C illustrate the swept paths for the four largest vehicles identified as making frequent trips to the site via Ferdinand Street. Vehicles used for the swept paths analysis include an articulated low loader, a flatbed lorry, a tipper lorry and a concrete mixer.
- 3.1.3 These drawings indicate that existing parking along Ferdinand Street will need to be temporarily suspended in order to accommodate larger construction vehicles such as low loaders and articulated lorries reversing into the access road (see Section 5). The relevant applications will be made for these suspensions prior to the requirement for the necessary suspension.
- 3.1.4 The drawings demonstrate that these vehicles are able to access and egress the site with the implementation of the aforementioned parking suspensions. Therefore all of the above vehicles could potentially access the construction site without overhanging or overrunning any kerblines.

3.2 Heavy Goods Vehicle Volumes

3.2.1 It is anticipated the maximum number of construction vehicle movements that will occur during the construction period is 30 movements (15 vehicles accessing and then egressing the site) per day, which will during Phase 1.

Construction Phase	Sub Phase Activity	Volume Delivered/ Removed	Activity Duration (Days)	Vehicle Type	Vehicles /	Maximum Movements / Day
	Soil Removal	90m ³	5	Tipper lorry	10	20
Phase 1 - Site Clearance and	Hardcore	380m ³	10	Tipper lorry	15	30
Demolition*	Re-cycled material removal	1050m ³	15	Tipper lorry	15	30
Phase 2 -	Soil Removal	130m ³	5	Tipper lorry	4	8





Excavation for foundations			Tipper lorry	2	4	
Foundation	Concrete foundations	160m ³	15	Concrete mixer	4	8
	Steel	165 tonnes	30	Flatbed/artic lorry	4	8
Phase 3 - Construction	Timber	280m ³	30	Flatbed/artic lorry	10	20
Stage 1	Block Work	48m ³	15	Flatbed/artic lorry	2	4
	Concrete	66m ³	20	Concrete mixer	4	8
	Brick work	360m ³ 60		Flatbed/artic lorry	10	20
	Steel delivery	40 tonnes	30	Flatbed/artic lorry	2	4
Construction Stage 2	Concrete	42m ³	18	Concrete mixer	2	4
	Timber	110m ³	30	Flatbed/artic lorry	6	12
	Block work	180m ³	10	Flatbed/artic lorry	6	12
	Concrete	38m ³	18	Concrete mixer	2	4
	Composite panels	62 tonnes	10	Flatbed/artic lorry	2	4
Construction Stage 3	Windows and glass frames	146 tonnes	15	Flatbed/artic lorry	8	16
	Internal fittings	88m ³	15	Flatbed/artic lorry	6	12
	M+E service connections	28m ³	8	Flatbed/artic lorry	1	2
	Green roof installation	10 tonnes	4	Flatbed/artic lorry	1	2
Construction	External landscaping	120 tonnes	8	Flatbed/artic lorry	4	8
Stage 4	Concrete mix	14m ³	2	Flatbed/artic lorry	1	4
	External finishes	6m ³	2	Small van	1	2
* Site Clearance	 Small vehicles (e.g. vans) to clear rubbish from site. No demolition required. Necessary disconnection of all services to top floor for demolition. Scaffolding around the building plus Lift/Hoist for access to top floor construction. Large Skips around the building. All bricks to be stored of site for re-use in parts of the proposed development. All other materials (e.g. metal, timber doors, windows, railings, flooring and joists) to be re- cycled off site. All delivery Lorries to come via Ferdinand Street to drop off empty large skips and remove filled ones. The use of a luffing crane within Lift pit for construction period. 					

3.1 Forecast Construction Vehicle Movements

Based on the current programme, and in consultation with potential contractors, a table indentifying the predicted volume of construction vehicles will be provided. It should be noted that although a time period has been set for each activity, the total number of vehicles specified for the associated task within that period will not be evenly spread over the allocated time period. Within the time allocated for each activity there will be peaks in vehicle generation due to the requirements of the site at any one time. As such, the above table represents the anticipated peak movement of vehicles within the specified activity.

Existing Large Vehicle Movements

- 3.2.2 Large vehicles which use the access road and the service yard at present include service vehicles such as refuse, maintenance and supply deliveries for the existing businesses within the office buildings backing out onto the service yard.
- 3.2.3 The TRAVL database was examined to calculate the estimated number of delivery trips that are currently accessing the proposed development site. The database indicates that offices



with similar parameters (PTAL, number of employees and gross floor area) currently experience two inbound and two outbound delivery trips per day (or four movements) which are spread across the day. During construction of the proposed development the number of construction trips will at times be more than currently generated.

3.3 Workforce Traffic

- 3.3.1 The site workforce will peak at approximately 30 staff, depending on and subject to construction stages.
- 3.3.2 No staff parking will be provided. Construction contractors will be responsible for encouraging workers to share vehicles or use sustainable methods of public transport to the site such as London buses and London Underground.
- 3.3.3 The existing Controlled Parking Zone (CPZ) surrounding the site will deter workforce parking on residential streets in the area. The CPZ operates between 0830-1830 on weekdays, and between 0930-1730 on Saturdays and Sundays, covering the proposed working hours of the site.
- 3.3.4 The close proximity of Chalk Farm Underground Station and Kentish Town West Railway Station in addition to plentiful bus routes on Chalk Farm Road and Ferdinand Street which stop immediately outside the site also assist in making workforce access to the site by public transport an attractive proposition for many site workers from a wide catchment.
- 3.3.5 Staggered shift patterns for the various trades and specialists employed on site will ensure that the impact of any workforce traffic is spread over a number of hours, and will therefore have a negligible impact on surrounding road and public transport network capacity.



4 **Construction Site Access**

4.1 Strategic Road Network

- 4.1.1 It is envisaged that the A400 Camden High Street and the A503 Camden Road will form the most suitable link in the strategic road network to accommodate construction vehicles. Primary routes providing connections to the A400 (i.e. A501 Euston Road and A1 Holloway Road) will therefore form the main approach routes to the site.
- 4.1.2 The construction traffic route into and out of the proposed site can be seen in the diagram below:

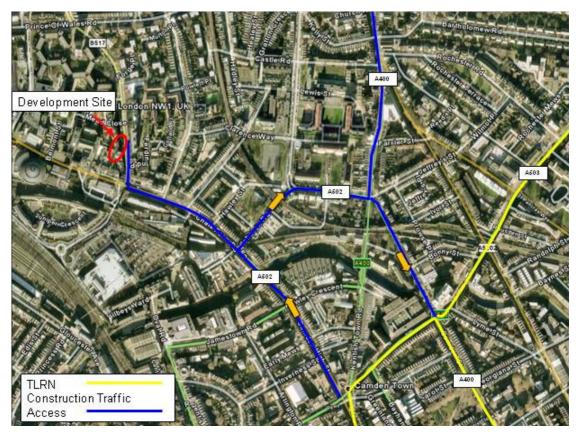


Figure 4.1 Traffic Route Into/Out of Proposed Site Source: ©Google Earth Image 2009 BlueSky

- 4.1.3 It is proposed that construction vehicles access and egress the proposed development site via the A502 one-way system to/from the A400 and A503 to the east of the site.
- 4.1.4 It should be noted that the roads outlined above form part of TfL's Strategic Road Network as well as the local distributor network which is suitable to accommodate construction traffic associated with the proposed development.



4.2 Local Road Network

- 4.2.1 From Chalk Farm Road (A502), vehicles are able to turn right into Ferdinand Street. The tracking of this movement can be seen in Appendix C.
- 4.2.2 Ferdinand Street operates one lane in each direction, with Pay & Display parking bays along the northbound lane at the junction with Chalk Farm Road. In addition, residential parking bays are located on both sides of the carriageway along most of the length of Ferdinand Street with bus stop cages in both directions also located outside the junction with Mead Close. The location of parking bays and bus stops along Ferdinand Street is shown in Figure 4.2 below.



Figure 4.2 Ferdinand Street Parking Bays and Bus Stops Source: © Crown copyright, All rights reserved. License Number 100020449

4.2.3 Although a two-way road, due to the location of the parking bays, the lanes for both directions of traffic are significantly reduced (as shown in Figure 4.3). The presence of bus cages along the road further reduces the width of available space for moving traffic.





Figure 4.3 Ferdinand Street

- 4.2.4 The residential Controlled Parking Zone (CPZ) on Ferdinand Street operates between 0830-1830 on weekdays, 0930-1730 on Saturdays and Sundays. Pay & Display parking bays at the southern end of Ferdinand Street are in operation between 08:30 and 18:30 on weekdays and between 09:30 and 17:30 during weekends, with a maximum stay limited to 2 hours.
- 4.2.5 The final section of route to the proposed site is along an unnamed access road between Kent House and Tottenhall House. The access road is narrow (approximately 3.2m) with only oneway movements possible at any one time along its full length. A service yard is located at the end of the access road, the entry of which has a height restriction of 3.2m due to the connecting passageway between the two sides of the building.
- 4.2.6 There is no access to the north of the site from Ferdinand Street via Mead Close due to a locked key-card gate preventing vehicle and non-resident pedestrian access. Nor is there access to the site from Belmont Street to the west of the site, although the buildings there share the use of the service yard with 17 Ferdinand Street.
- 4.2.7 There are several bus routes which operate in both directions on Chalk Farm Road and Ferdinand Street/Malden Road. Route 24 operates a 24-hour service between Pimlico and Hampstead Heath with up to 20 buses/hr between 07:00 and 19:00 on weekdays. It serves the Ferdinand Street bus stop, which is adjacent to the proposed development, in both directions. Route 46 serves bus stops along Ferdinand Street/Malden Road, north of Prince of Wales Road and thus doesn't operate in the immediate vicinity to the site. Bus routes 168, 31, 27 and 393 all operate along Haverstock Hill/Chalk Farm Road at the southern end of Ferdinand Street.



4.3 Immediate Site Access

Pedestrian Access

4.3.2 Pedestrian access for authorised site personnel will be from Ferdinand Street and along the access road. This will provide access to the residential development of 17 Ferdinand Street.

Vehicle Access

- 4.3.3 Ferdinand Street and the access road will remain open as a public vehicular route throughout the construction period.
- 4.3.4 All construction vehicles will access the proposed site from Chalk Farm Road via Ferdinand Street and the access road. A service yard at the rear of the site currently operates as the main service area and will continue to do so throughout the construction period, with construction vehicles also making use of the service yard space for unloading and turning.
- 4.3.5 A vehicle waiting area will be provided within the service yard area on the side adjacent to 25 Ferdinand Street for the duration of the construction period. This is to better regulate construction traffic movements and minimise their impact on other users of the service yard area, such as service and delivery vehicles. A second vehicle waiting area will also be available outside the yard area, at the end of the access road. Because of limited space, this waiting area will only be used by smaller construction vehicles such as vans and skip lorries. The positioning and size of the two vehicle waiting areas across the three construction phases is shown in Appendix A.
- 4.3.6 Authorised site personnel will enter the site via the access road.
- 4.3.7 As outlined in Chapter 2 there are a number of stages that make up the construction period. However it should be noted that the access/egress to the site from the highway will be maintained throughout the construction period. The access arrangements will be managed as discussed below.
- 4.3.8 At present the service yard area is only accessible for vehicles less than 3.2m in height, with the connection between 17 and 27 Ferdinand Street spanning the space above the road.
- 4.3.9 The demolition and re-building of the connection between 17 and 27 Ferdinand Street forms part of the proposed development. To facilitate construction vehicle movements and enable servicing and delivery vehicle access to the site, it is proposed that the connecting section of the two buildings be removed during the early phase of demolition, and replaced at the end of the construction period, thus enabling all vehicles to access the service yard throughout all construction phases. Prior to its demolition, the only vehicles accessing the site will be rigid skip lorries, which can use the vehicle waiting area outside the proposed development to reverse and collect demolition waste.
- 4.3.10 Once demolition of this link is complete, construction vehicles which are unable to use the vehicle waiting area to the front of the proposed building and will use the yard to access the development.
- 4.3.11 Early in the construction process a luffing crane will be delivered to the site and will be placed within the proposed lift shaft in the proposed central wing. The crane will remain in place



throughout the construction period. Its usage will facilitate moving building materials to and from construction vehicles, thus reducing the time that construction vehicles stay on site.

- 4.3.12 Large construction vehicles, such as low loaders, will need to reverse into the access road from Ferdinand Street. To facilitate this, the traffic movements along Ferdinand Street will have to be regulated by a banksman. Vehicles will then unload while in the yard and leave via Ferdinand Street. Medium construction vehicles unable to use the front vehicle waiting area, such as concrete mixers as well as articulated and tipper lorries will be able to enter the yard and reverse within it, exiting towards Ferdinand Street.
- 4.3.13 When the main construction phases are complete, the connection between 17 and 27 Ferdinand Street will be re-instated, once again limiting clearance at the yard entrance to 3.2m. At this point it is expected that no large or medium construction vehicles will need to access the development. Instead, small construction vehicles, including vans, will be used during the final fit-out of the building. These will be able to access the site in a forward-facing movement and either reverse within the yard or use the vehicle waiting area outside of the proposed development and reverse there.
- 4.3.14 The tracking demonstrating the operation of the site access during construction is shown in Appendix C.

4.4 Site Access Changes During Construction

4.4.1 Site access arrangements and frequency of construction vehicle movements will vary across the three construction phases. The differences are outlined below.

Phase 1 – Demolition and Site Clearance

- 4.4.2 During the demolition of the existing building and roof loft structure, the need for vehicle access will be minimal. All deliveries will arrive and leave via Ferdinand Street. Skips will be delivered and positioned close to the building access and removed by tipper bodied rigid vehicles.
- 4.4.3 Rigid skip lorries will be used initially prior to the demolition of the connection between 17 and 27 Ferdinand Street. They can approach the site from Ferdinand Street and can load materials whilst waiting in the vehicle waiting area outside the building. Following demolition of the connecting section, all other vehicles will be able to approach the site and use the service yard.
- 4.4.4 During the demolition phase it will be necessary to deliver a luffing crane to the site. This will take place in a single delivery by low loader vehicles. The vehicle will need to reverse into the site from Ferdinand Street in order to access the proposed development. All parking spaces on the east side and approximately 3 spaces on the west side of the Ferdinand Street carriageway south of Mead Close will need to be suspended for the duration of the crane delivery.
- 4.4.5 The process will also require a temporary closure of a small section of Ferdinand Street to vehicular traffic. To minimise disruption and reduce the impact on parking, bus movements and traffic flow along Ferdinand Street the crane delivery will be managed by a banksman and scheduled to take place 'out of hours'. The road closure is only envisaged to last for less than half a day and will be arranged and agreed with the LBC prior to the event taking pace.



Phase 2 – Foundations

4.4.6 As with Phase 1, vehicle access is expected to be minimal, with deliveries able to arrive and leave via Ferdinand Street. Concrete mixers and tipper lorries will be able to enter the service yard in a forward gear and reverse within it before exiting back onto Ferdinand Street. Vans and skip lorries will be able to use both the service yard and the vehicle waiting area outside of the building.

Phase 3 – Construction Stages 1-4

- 4.4.7 Throughout all four of the construction phase stages access to the development will be via Ferdinand Street.
- 4.4.8 Where possible during this phase, all deliveries will be made by vehicles able to access the site in a forward gear (the largest being a 12m rigid truck) and turn around in the service yard before exiting the site. The use of large vehicles such as flatbed lorries, articulated lorries or low loaders will require the temporary suspension of all on-street parking on the east and 3 parking bays on the west side of the Ferdinand Street carriageway south of Mead Close as well as the management of the deliveries around the use of the adjacent southbound bus stop.
- 4.4.9 The number of deliveries required to be made by large vehicles will therefore be kept to a minimum during this phase. The drawings provided in Appendix C indicate the tracking of the various construction vehicles, and the impact of parking bays in the area. Movement of articulated vehicles into and out of the site has been included in the tracking assessment to ensure a robust appraisal.
- 4.4.10 Banksmen will be stationed at the site access and service yard area throughout the construction period to assist construction vehicles to enter and exit the site safety, whilst minimising inconvenience to other traffic using the access road. Banksmen will also be present at Ferdinand Street during construction stages which require deliveries by flatbed lorries and articulated lorries. This is because of the reversing manoeuvre that the vehicles will have to perform to reverse into the access road.

4.5 Delivery Booking System

- 4.5.1 A delivery booking system will be produced and operated by the contractor's site traffic manager. The system will aim to mitigate the following:
 - Queuing outside the site;
 - Arrival of unscheduled deliveries;
 - Deliveries arriving late due to supplier despatch misunderstandings;
 - Deliveries failing to arrive;
 - Wrong quantities or materials arriving by mistake, requiring the vehicle to be sent away, or an additional 'part-load' vehicle delivery to make up delivery requirements;
 - Delivery vehicles arriving early in the hope that they will be dealt with out of turn; and
 - No staff or equipment being available on-site to unload the vehicle.



- 4.5.2 Mitigation of the above will avoid unnecessary vehicle movements to and from the site. It will also importantly reduce the possibility of construction vehicles queuing outside of the site waiting to be processed.
- 4.5.3 The delivery booking system will contribute towards decreasing / mitigating any potential negative environmental and/or social impacts the construction traffic may have on the surrounding area including neighbouring residents and businesses. Without the booking system in place the impacts could potentially include noise and air pollution as well as congestion and reduced accessibility to Ferdinand Street and adjoining roads.
- 4.5.4 The delivery booking system will be operated by the construction site traffic manager.
- 4.5.5 Banksmen will be employed to ensure the efficient and safe movement of vehicles into and out of the site. The banksmen will be coordinated by the site traffic manager, and will organise both the Ferdinand Street and the service yard access points as necessary.



5 Additional considerations

5.1 Vehicle 'Muck' Control

- 5.1.1 There will no need for vehicle wheel wash, as all construction vehicles will stop on vehicle loading area within the service yard or the vehicle service area at the entrance to the site.
- 5.1.2 A road sweeper will be on hand to clear up any material inadvertently spread on the public highway by vehicles accessing/egressing the site as quickly as possible after any identified occurrence.

5.2 Off Site Highways Works to Facilitate Construction

5.2.1 No off-site highway works are proposed which would facilitate the construction site access and egress via Ferdinand Street at this stage.

5.3 Pedestrian Movement and Route Diversions

- 5.3.1 The pedestrian footway directly adjacent to the site boundary will be unaffected by the construction works, but will be maintained and managed by the site banksman in order to ensure safe passage of any pedestrians. Appropriate signage and hoarding will be used to advise pedestrians of the ongoing construction works, and safe routes.
- 5.3.2 Pedestrian access to the rear service area will remain but will be maintained and managed by the site banksman in order to ensure safe passage of any pedestrians. Appropriate signage and hoarding will be used to advise pedestrians of the ongoing construction works, and safe routes.

5.4 Access to Public Transport Facilities

5.4.1 No public transport infrastructure or routes will be affected by the construction. However, route 24 runs along Ferdinand Street, serving stops outside Broomfield House and Rugmere House, north of the access road to the development. Although the proposed development will not directly impact bus operation, the largest vehicles reversing into the access road will need to use some of the road space currently occupied by the southbound bus cage for route 24. This will be a short-term use and only during the reversing movement by the largest vehicles during Phase 3 of the development. Banksmen will be present on site during these vehicle movements to mitigate against any impact on the bus services at the time.

5.5 Cycle Movement and Route Diversions

5.5.1 No LCN cycle routes will be affected by the construction.

5.6 Local Community Engagement

5.6.1 The developer of the site understands the importance of engagement with the local community regarding the development of this CTMP.



- 5.6.2 It is proposed that a construction working group will be organised and facilitated with the local community within a boundary area to be agreed with the LBC. It is proposed that meetings will be held monthly throughout the construction period at the site office at Ferdinand Street.
- 5.6.3 Residents will be invited to the group by way of a letter drop which will provide details of proposed dates and location of the meetings along with the contact details of the project manager.
- 5.6.4 The developer will continue to liaise with the local community with respect of the construction of the proposed development as outlined above.
- 5.6.5 The hoarding used to secure the site will make the construction purpose clear, in addition to displaying information on how, and where, to contact the site management.



6 Ongoing development of the CTMP

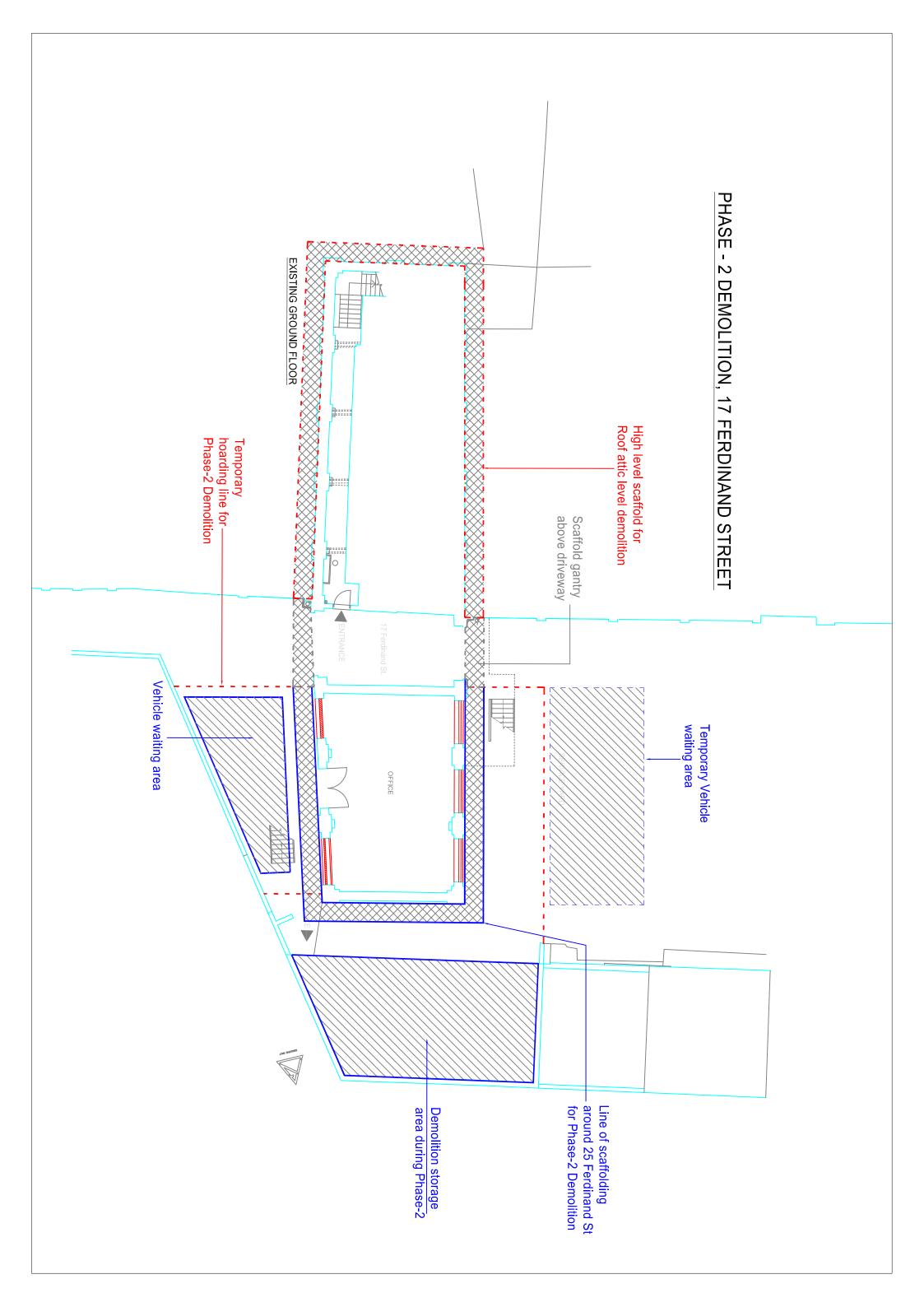
- 6.1.1 It is acknowledged that the agreed contents of the Construction Traffic Management Plan (CTMP) must be complied with unless otherwise agreed with the LBC. The contractors' project manager will work with the LBC to review this CTMP if problems arise in relation to the construction of the development. Any future revised plan must be approved by the LBC and complied with thereafter.
- 6.1.2 This CTMP has been developed in consultation with key stakeholders at a level of detail sufficient to inform them of construction traffic management proposals. The principles identified in this CTMP are considered to form a robust basis and framework for ongoing development and implementation of the CTMP.
- 6.1.3 It is envisaged that the principles described in this document will be developed in further detail as the construction methodology and logistics plans are progressed and contractors appointed. Contractors will be expected to employ their own 'in-house' management systems to meet the overall aims of the CTMP.
- 6.1.4 The CTMP may also be revised to maintain compatibility with other documents being developed as part of the Construction Environment Management System.
- 6.1.5 The overarching aim is to provide a safe environment for the site workforce and the surrounding business and residential community throughout the duration of construction.

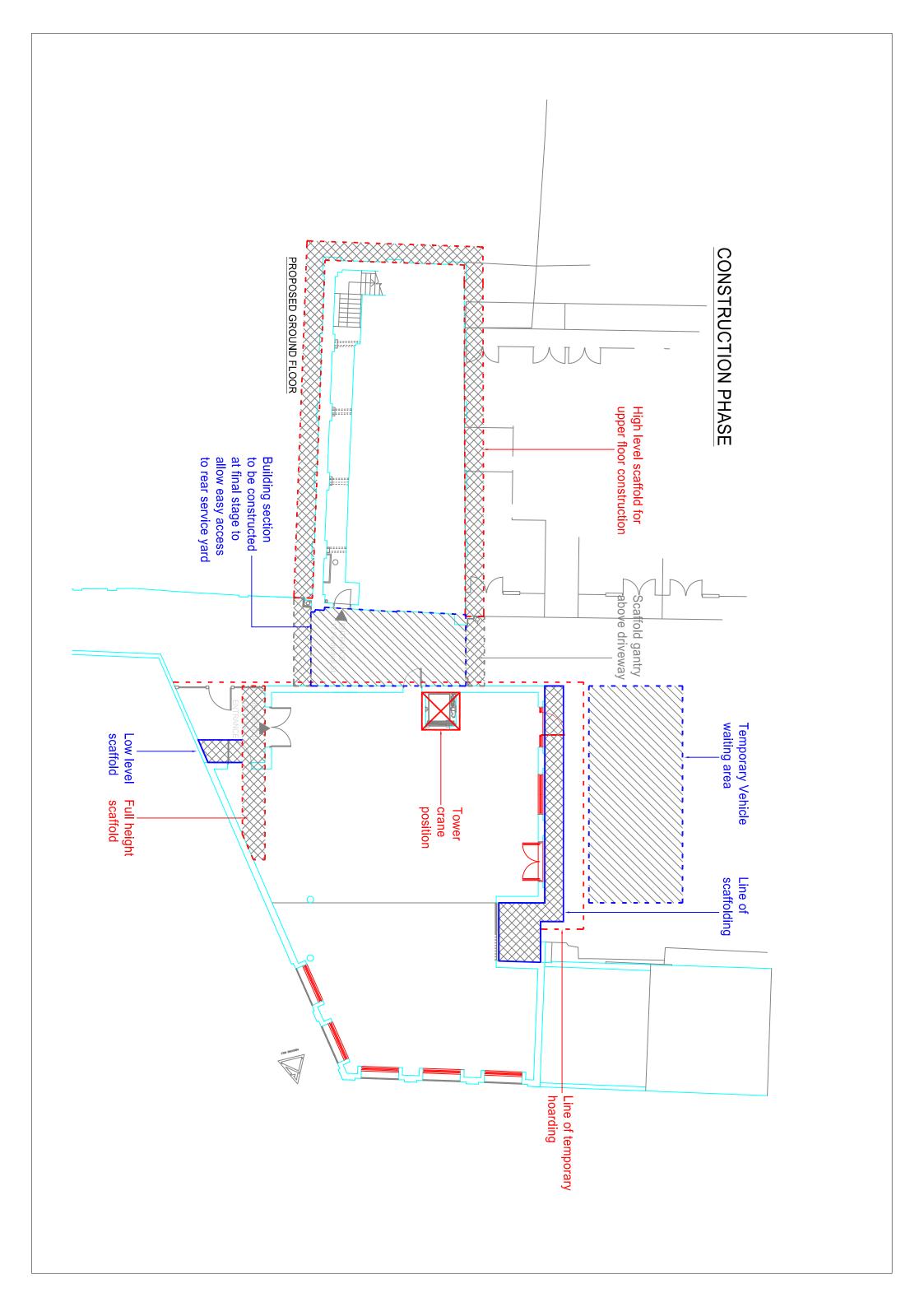


Appendix A Indicative Site Layout



Line of scaffolding around 25 Ferdinand St for Phase-1 Demolition







Appendix B Construction Management Programme

17,27 & 25 Ferdinand Street, Camden, London NW1 Residential Development Construction Programme February 2015

ID	0	Task Name	Duration	Start	•	ay '1 06 Jul '15 7 Aug '1 8 Sep '1 9 Nov '1 1 Dec '1 1 Feb '1 4 Mar '1 5 Apr F T S W S T M F T S W S T M F T S W S
0		Ferdinand Street Construction Programme 10-02-2015	410 days	Mon 20/07/15	Fri 10/02/17	
1		Demolition Tender	8 wks	Mon 20/07/15	Fri 11/09/15	
2		Ground Investigation Soil Test	2 wks	Mon 27/07/15	Fri 07/08/15	
3		Party Wall Matters	12 wks	Mon 03/08/15	Fri 23/10/15	
4		Sub-Structure Detail Drawing Package	4 wks	Mon 10/08/15	Fri 04/09/15	
5		Structural Engineers Foundation Design	2 wks	Mon 10/08/15	Fri 21/08/15	
6		Structural Engineers RC Frame Design	6 wks	Mon 24/08/15	Fri 02/10/15	
7		Services Engineers Drainage Design	4 wks	Mon 07/09/15	Fri 02/10/15	
8		ME Engineers Design	4 wks	Mon 24/08/15	Fri 18/09/15	
9		Construction Detail Drawing Package	10 wks	Mon 10/08/15	Fri 16/10/15	
10		Phase 1 - Site Clearance	0 days	Fri 25/09/15	Fri 25/09/15	
11		Scaffold Instalation	2 wks	Mon 28/09/15	Fri 09/10/15	
12		Demolition	4 wks	Mon 12/10/15	Fri 06/11/15	
13		Setting out Survey	1 wk	Mon 09/11/15	Fri 13/11/15	
14		Phase 2 - Foundation to New Extension Wings	0 days	Fri 13/11/15	Fri 13/11/15	
15		Foundation to Proposed New Wings	4 wks	Mon 16/11/15	Fri 11/12/15	
16		Reinforce existing building section foundation	4 wks	Mon 16/11/15	Fri 11/12/15	
17		Phase 3 - Construction Stages	0 days	Fri 11/12/15	Fri 11/12/15	▲ 11/12
18		Construction Stage 1	0 days	Fri 11/12/15	Fri 11/12/15	◆ 11/12
19		Super-Structure Construction of New Wings	14 wks	Mon 14/12/15	Fri 18/03/16	
20		Frame Structure above Existing Building Section	8 wks	Mon 21/03/16	Fri 13/05/16	
21		New Roof above Existing and Proposed Building	5 wks	Mon 16/05/16	Fri 17/06/16	
22		Construction Stage 2	0 days	Fri 17/06/16	Fri 17/06/16	
23		External Brickwork Cladding to New building Wings	5 wks	Mon 20/06/16	Fri 22/07/16	
24		External Glass Frame Cladding to New Proposed Top Floors	4 wks	Mon 25/07/16	Fri 19/08/16	
25		Construction Stage 3	0 days	Fri 19/08/16	Fri 19/08/16	
26		Frame Structure Construction of Glass Link	6 wks	Mon 22/08/16	Fri 30/09/16	
27		External Glass Frame Cladding to New Proposed Links	5 wks	Mon 03/10/16	Fri 04/11/16	
28		All Internal Fittings	12 wks	Mon 19/09/16	Fri 09/12/16	
29		Electric Distributions	2 wks	Mon 26/09/16	Fri 07/10/16	
30		Heating & Water Distributions	4 wks	Mon 26/09/16	Fri 21/10/16	
31		BT Cable Distributions	2 wks	Mon 03/10/16	Fri 14/10/16	
32		Gas Boiler Installations	2 wks	Mon 24/10/16	Fri 04/11/16	
33		Final Internal Residential and Commercial Fit out	4 wks	Mon 07/11/16	Fri 02/12/16	
34		Mechanical Lift Installations	2 wks	Mon 14/11/16	Fri 25/11/16	
35		Construction Stage 4	0 days	Fri 25/11/16	Fri 25/11/16	
36		Green Roof Installations	2 wks	Mon 28/11/16	Fri 09/12/16	
37		Removal of Scaffold and Site Office	1 wk	Mon 12/12/16	Fri 16/12/16	
38		External Landscaping	2 wks	Wed 04/01/17	Tue 17/01/17	
39		Hard Surface Block Paving Entrance and Service Yard	2 wks	Mon 16/01/17	Fri 27/01/17	
40		Final Building Inspections	1 wk	Mon 30/01/17	Fri 03/02/17	
41		Building Operation Manual	1 wk	Mon 06/02/17	Fri 10/02/17	
42	6	Building Completion & Handover	0 days	Fri 10/02/17	Fri 10/02/17	
		7 & 25 Ferdinand Stree Task Progress		Summary	•	External Tasks Deadline
Date. I	Jui re	Split Milestone	•	Project Su	Page 1	External Milestone

