Construction Method Statement

For:

36 Park View Drive South, CHARVIL, RG10 9QX

Prepared by Harmeet Minhas MRTPI

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RTPI
Chartered Town Planner

Construction Method Statement

Our clients are proposing a conversion of existing residential units to four self-contained flats, associated parking and amenity space. It is proposed to provide high quality family accommodation within this popular location.

The construction of the new building is of traditional cavity construction involving the following:

Below ground drainage:	Connected to existing foul water drainage system
Foundations:	Strip foundations with C30 grade concrete
Ground floor slab:	Insulated concrete
Masonry:	Cavity walls externally outer leaf facing brick inner leaf thermalite block
First Floor:	Timber first floor
Stairs	Timber stairs
Roof:	Traditional cut rafters roof with roof felt, clay tiles, ridges, and hip tiles
Gutters and downpipes:	UPVC
Windows and doors:	UPVC triple glazed
Inner walls:	Timber framed stud partitioning with plasterboard
Ceilings:	Plasterboard
Decoration:	Two coats emulsion

The challenge for the construction team for the specific project has been identified as follows:

- Maintaining free flow of traffic whilst taking deliveries of plant and materials.
- Working safely within a live surrounding.
- Ensuring limited disturbances to neighbours.
- Achieving the quality of construction and workmanship to realise the Project's design concept.

This method statement sets out to demonstrate our ability to carry out the works in the optimum time, in the most viable and safe manner to achieve a completed project to the satisfaction of all parties involved.

Method Statement

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General

This method statement has been prepared on the basis of the tender information as issued and gives an indication of our general approach to the construction and management of the project.

We have included our intention for managing and supporting the project and the particular approaches that will be taken for certain key aspects.

Certain areas of operation will be the subject of specialist consideration, and more specific and detailed method statements relating to these operations will be provided at a later stage and as the project proceeds. These additional key method statements will be prepared by the specific contractors involved.

Planning and Programme

The project has been programmed to be completed within the 32 weeks in accordance with information set out in the tender documents.

The project construction programme has been prepared and developed using the computer-based Microsoft Project planning and project management software.

This is a critical path network-based system which has the capability to produce bar chart programmes that can incorporate design, co-ordinated trade contractor design, design reviews, procurement, equipment/material orders, deliveries and site installation period as part of our standard procedures.

The construction programme will be monitored, traced and updated on a regular basis and any corrective action applied as necessary.

The Contract Programme will be prepared as an abstract of the construction programme and issued to all parties and used as the reporting document for all site construction progress. A procurement schedule will be prepared from the construction programme that will identify key dates to be achieved within the design, detailing, approval and manufacture/procurement process for individual trade operations.

This schedule will be utilised for the control of the procurement process of trade contractor packages from final enquiry through to appointment, drawing production, manufacturing and procuring processes, and up to the date of their commencement of site operations. The schedule will be monitored, tracked and updated on a regular basis and any corrective action applied as necessary.

The schedule of Information Required Schedule will also be produced that will identify final design achievement dates for all outstanding design aspects. This schedule will be issued to all parties and monitored, tracked and updated on a regular basis and any corrective action applied as necessary.

Pre-start Investigations

Prior to commencement of site works, an external survey will be carried out to confirm the existing site levels, extent of any existing services and the condition of the existing environs. These will be plotted on a drawing and a photographic record will be taken, which will be maintained as a record throughout the stages of the contract.

Notification of the project commencement will be issued to all Statutory Authorities, advising them of the construction works and advising them of Regal Homes Southern Limited proposed programme of works.

At the commencement of the contract, the contractor will start the Logistics activities, which are detailed below.

Site Logistics

The way in which the site is established and managed is critical to the success of the project.

In acknowledgement of the proposals in the contract documents we propose to set up the site access arrangements as shown on the accompanying Site Access plan.

As all work is occurring within the existing property, it is our intention to excavate the trenches for the foundations and underground drainage using manual labour. It is then proposed to use ready mix concrete and a concrete pump to pour concrete into the trenches to form foundations.

Loading towers will be erected adjacent to the external elevation for the forklift truck to transfer concrete blocks and roofing materials to the upper floor and roof levels.

Mobile elevating platforms will be utilized, where conventional scaffolding is unsuitable, to provide access erection of the frame and installation of roof and render.

The forklift truck will also provide the required off loading and horizontal material movement facilities during the construction period.

Site Management Establishment

The site management for the project will compromise a site based Senior Building Manager who will lead the site team and administrator the contract.

The Senior Building Manager will be assisted and supported by the following site-based construction management personal, responsible for the management and supervision of the site-based operations.

- Assistant Building Manager responsible for specific areas of the construction process
- A Project Surveyor will provide the commercial and procurement resources.

The site team will be supported and assisted by our head office-based staff including environmental, planning, temporary works, health and safety manager.

Services installation co-ordination and management will be achieved by the appointment of our Service Manager to the project.

Security and Site Establishment

Plywood hoarding or Heras fencing will be erected on the site boundary, shown on the enclosed Site Logistics plan, to secure it during the contract period. These hoardings or fences will be maintained and adapted during the contract to suit the phasing of he works.

Site office and welfare facilities will be established as identified on this plan, utilising the servicing points identified in the documents and shown on the drawings.

Personnel

All personnel will be inducted prior to gaining access to the site. They will be informed of the specific site rules required in the preliminaries relating to this project as well as Landmark site rules and their own company's method statements.

Site Access and Deliveries

Vehicular and pedestrian access to the site is via the road on which the site is located on; namely Park View Drive South & A4 New Bath Road. Featherstone Road is an off route and used as an alternative to Featherstone Road, (particularly during peak hours). Delivery vehicles will be provided with directions to enter the site and be required to turn off engines to avoid nuisance upon arrival.

Said vehicles will avoid deliveries during school and peak hours.

Street car parking is provided on Park View Drive South, adjacent to the site. This allows the unloading of materials without the need to enter the site. As the development is sharing land with the local Post Office/supermarket, its car parking space can be utilised for short periods of time to access the rear of the site and unload material.

Cars and delivery vehicles will only be permitted to park/load in these designated areas.

Wheel washing facilities will be provided for construction vehicles which need to enter and exit the site.

Delivery constraints will be identified to all suppliers and trade contractors. They will be given a copy of the lorry route map (which can be found at the end of this document).

Delivery of materials, plant and equipment will be strictly controlled and co-ordinated using a banksman/traffic marshal to prevent congestion and disruption to traffic using Park View Drive

South. It is recommended that all materials be dropped straight into the site within the designated material storage areas. Parking of delivery vehicles & visitors will be where the existing car garage is. If the delivery vehicle cannot find a parking space, it will be politely requested to not wait on the highway and re-routed until such a time as space becomes available within the site. No vehicle will be permitted to stay longer than required for the purposes of equipment/material unloading.

Construction staff will be encouraged to travel to work using sustainable modes of transport (e.g. Public transport, cycles, walking, or electric vehicles). Staff using public transport will be compensated for their travel, while others using normal methods will not be. This shall be a form of encouragement to continue their use of sustainable transport, and adapt others to follow suit.

Signage

Adequate signage will be installed such that the vehicles deliveries and access to the site are clearly defined within the general site geographical area.

A main construction signboard will be positioned on the front hoarding.

Site signage will be provided within the curtilage of the site as necessary to advise operatives/visitors and delivery staff of safety requirements within the confines of the site and where to report on arrival. Such signage will include:

- Accommodation/Access requirements
- Speed Limits
- Overhead/Underground Services
- Safety Helmet and Footwear Requirements
- Noise
- Danger Construction Site, etc.

Movement and Hoisting of Materials

Hoisting provisions will be described under logistics section of this method statement. All vehicle movements and deliveries will be subject to the control of the main contractor.

The storage of materials on site will be kept to an absolute minimum and therefore delivery scheduling will be carried out to ensure supply is on a “just in time” basis only.

The site manager will liaise with the councils Highways and Parking department if and road/footways need to be closed, or if any CPZ parking bays need to suspend their use.

All concrete and screed deliveries will be proposed as “Ready Mixed” and will be delivered to the site in appropriate vehicles.

Concrete and screed placement techniques will be changed and adapted to suit the location and suitability of the equipment for its placement.

The maximum number of deliveries that will be permitted is 4 per day. These will only happen within the allocated times, and any further ones will be rescheduled to another day. Delivery vehicles will consist of standard vans, cement mixing vehicles, and standard HGV delivery vehicles with cranes.

Storage and Handling

The contractors site area will provide the storage area for all plant and materials delivered to the site. Materials will be stored within the building, ready for the finishing trades.

More vulnerable materials/equipment will be stored in the secure containers, shown the site plan, or programmed on to site to be incorporated directly into the construction.

Waste Management

A waste removal strategy will be developed during the pre-commencement period. This strategy will be incorporated within all trade contractors' orders.

For tender purposes the rubbish skips will be provided within the contractors site area, which will be removed and replaced on a regular basis. All trade contractors will be required to transport and deposit their rubbish within this provision.

Site Waste Management Plans (SWMP's) are required by the contractor.

We are also working towards better understanding waste management so the volume of waste to be disposed is reduced and segregation enables as much as possible to be recycled.

Scaffolding

Conventional scaffolding, where required, will be independent with boarded lifts to suit the nature, location and type of the particular operations.

All scaffolding will be securely tied to the structure and will include suitable ladder access. Scaffolding will be provided, erected, ad maintained in accordance with all current statutory regulations. In addition, brick guards will be provided on the "live" lifts.

Suitable guard railing will be utilised to prevent falling from unprotected edges of the excavations, upper floors and staircase as applicable.

No person other than certified competent scaffold personal will be permitted to erect, alter, adapt or dismantle any conventional scaffolding.

Temporary Services

- Power supply will be provided by a generator until the new electric main substation has been commissioned.
- 110v power will be utilised throughout the building.
- Water will be provided direct from the main system for use in welfare facilities.
- Temporary drainage will be connected to an underground storage tank until the new pumped foul main has been installed and commissioned.
- Fax, telephone lines and electronic data transfer line will be provided to the site offices.]
- Neighbours will be informed of the works through an opt-in email newsletter. This newsletter will detail the current state of the project, the next phase which will commence, health and safety advice, and comments/answers to questions asked by the public to the site.

Dust and Debris

The site will be kept clean and tidy at all times and will accord with any statutory requirements. Particular attentions will be given to preventing the contamination of adjoining roadways and existing water courses.

A local mechanised road sweeping/cleaning company will be found and used to clean the roads near the building site. A requirement for them to be local ensures that a call out can be achieved within 3 hours.

Site Evaluation

The need and ability of a developer to deploy effective control measures is often dependent on the size and scale of a development. In addition, consideration will need to be given to site location with regard to local air quality and ground conditions. Therefore, it is the intention of this document that best practice activity uses the following criteria to assess the potential impact of a demolition or construction site.

• the area taken up by the development
• the number of properties being developed
• the potential impact of the development on sensitive receptors close to the development
• is the site located on contaminated land

Based on the above, it is considered that the site is considered a 'low risk' site. This is based on the following criteria:

• Development of one property and:
• Potential for emissions and dust to have an intermittent or likely impact on sensitive receptors.
• Not located on contaminated land

Mitigation Measures for Low Risk Sites

Site planning

≥ Erect effective barriers around dusty activities or the site boundary

≥ No bonfires

≥ Plan site layout machinery and dust causing activities should be located away from sensitive receptors

Construction Traffic

≥ All vehicles should switch off engines- no idling vehicles

≥ Wash and clean all vehicles effectively before leaving the site if close to sensitive receptors.

≥ All loads entering and leaving the site to be covered

≥ No site run-off of water and mud

≥ All non-road mobile machinery to use low sulphur tax-exempt diesel, where available.

Demolition Works

≥ Use water as dust suppressant

≥ Cutting equipment to use water as suppressant or suitable local exhaust ventilation systems

≥ Securely cover skips and minimise drop heights

Site Activities

≥ Minimise dust generating activities

≥ Use water as dust suppressant where applicable

≥ Keep stockpiles for the shortest possible time

Control Measures for Low Risk Sites

Surface of Roads

≥ Use consolidated surfaces on roads near to residential areas

Damping Down

≥ Use agreed wet cleaning methods or mechanical road sweepers on all roads during periods of dry weather

≥ Clean road edges and pavements using agreed wet cleaning methods

Site Entrances and Exits ≥ Wash or clean all vehicles effectively before leaving the site if it is close to sensitive receptors. Ideally there should be a paved area between the wheel wash and before the public road.

Excavation and Earthworks

≥ All dusty activities should be damped down, especially during dry weather

≥ Temporarily cover earthworks if possible

≥ Minimise drop heights to control the fall of materials

Stockpiles

≥ Make sure stockpiles exist for the shortest possible time.

Cutting Grinding

≥ All equipment should use water suppressant or suitable local exhaust ventilation systems.

Chutes and Skips

≥ Securely cover skips

≥ Minimise drop heights to control the fall of materials

≥ Regularly damp down surfaces with water

Site Monitoring

≥ Employ best practice methods at all times

≥ Take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment
≥ Keep an accurate log of complaints from the public

Safety

Full recognition and regard will be taken in the management and execution of the project of the Construction Design and Management Regulations 1994.

All trade contractors are obliged to provide safety policies, plans and method statements and will be interviewed prior to order placement on all aspects of safety, health, and welfare.

All sites are subject to independent site safety checks, inspection and reports by our independent site safety inspectors and advisors.

Employer's direct contractors will be required to accord and be subject to the main contractors safety procedures and requirements as our own trade contractors and operatives, as outlined above.

Safety inspections will also include the works of the employer's direct contractors if appropriate. Safety procedures and requirements as our own trade contractors and operatives, as outlined above.

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Noise Control

Management of noise pollution and vibration control will be given a high priority. Where the works are in close proximity of occupied buildings WD will ensure that acceptable levels of noise are adhered to as well as statutory levels imposed by the Environmental Health Officers.

Construction

General

Our tender programme indicates our proposed timing and sequencing of operations necessary to achieve project completion.

Initial Work

Prior to the commencement of the project works, the preliminary Health and Safety and Fire Safety Plan will be prepared. This plan will be progressively refined and developed as trade package contractors and specialists are appointed, and more specific detailed methods, techniques and requirements are established.

The Contractor's offices and welfare facilities will be set-up within the contractors site area as shown on the Site Logistics Plan.

The temporary hoarding and fencing, as indicated on this plan, will be erected around the site before work commences and maintained throughout the Project. There will be separate site vehicles and pedestrian gates into the contractor's site compound area.

Works associated with the provision of a new electrical sub-station have been scheduled early in the programme to ensure an adequate supply for the new facilities.

Strip-Out & Demolition

Internal services within the existing building will be isolated before stripping-out and demolition operations commences. Any existing fixtures or fittings to be retained will be clearly identified and arrangements made to place these in secure storage before work starts. All asbestos material in the building, identified by survey before commencement, will be removed by a specialist sub-contractor before the building is demolished.

Demolition of existing internal partitions and ceilings will be carried out by hand. Operatives will be provided with appropriate personal protective equipment to prevent injury from dust and abrasion. Noise and dust generated by the demolition works will be confined within the contractors site area.

All demolition works will be undertaken by the specialist subcontractor.

Where necessary temporary support will be installed before any demolition commences to ensure stability of those existing buildings or structures which are to be retained structures.

Temporary screens or dust protection at existing door openings will be provided within the existing retained areas to prevent the contamination of surrounding areas.

Weather protection is to be provided to the roof and walls of the adjoining structures, to maintain the weather tightness of the existing building envelope.

Structure

The masonry walls will be constructed of partially filled cavity walls using 100mm thermalite blocks and 100mm brickwork/concrete blockwork.

A mobile crane will erect the steel beams and columns.

Envelope

The roof to the building will commence once the masonry walls have been erected. External independent scaffolding will be erected where required to provide safe access for the roofing and cladding works. Much of this would be carried out via mobile elevated work platforms. The roof covering installation will commence once the roof slab has been completed. The roof equipment will be placed in the roof once plinths and flashings have been completed.

The cavity walls will be built progressively 1.5m lifts to full height, from ground floor slabs up to the roof level.

Hoisting would be via Tele handler, for the wall construction and roofing works, to pre-erected scaffolding platforms.

The installation of the corridor roof lights will be undertaken by a specialist sub-contractor once the roof and upstands have been completed.

Internal works

Internal carcass and first fixing by the finishing trades will commence once a weather tight environment has been achieved within the new building, as indicated on the construction programme. When necessary, temporary weathering will be provided to window openings to prevent the ingress of wind and rain into the working area.

The wall and ceiling finishes will be completed ready for the final fixtures and fittings before the vinyl and carpet floor finishes area laid. The decorations to the building will be completed in advance of the other areas to permit floor for the installation of the bleacher seating.

Mechanical/Electrical Services

A detailed fabrication, delivery and installation schedule will be prepared by the Mechanical and Electrical contractor, upon instructions to proceed, to ensure compliance with the overall contract

programme, Builders work required for the new services will be defined at this stage for inclusion on the structural engineer's construction drawings.

The high-level conduits and pipework above ceiling level will be installed using safe access equipment.

Installation of light fittings, smoke detectors and fire alarm system will be co-ordinated with the suspended ceiling works. Where necessary some ceiling tiles will be omitted at this stage to permit access for testing and commissioning purposes. Key dates for power and water supplies to be available within the building will be identified on the programme.

Testing and commissioning of specialists' systems will be carried out by the specialist system supplier/installer and all test certificates will be issued.

On completion of the commissioning activities, the complete system will be offered for demonstration and witness testing to the client.

Fitting-Out and Handover

Temporary protection to floor and wall finishes will be removed once the installation of all fixtures and fittings has been completed.

The building will be handed over to the Client during the last two weeks of the construction period. Snagging, cleaning and inspection will be undertaken room by room, and once completed each room will be secured in advance of the final handover.

The site offices and compound will also be removed during the last two weeks of the project. Temporary site services will be isolated, equipment cleared, offices and plant removed prior to handover.

Handover Documentation

In parallel with the construction phase, we will put in place procedures for monitoring the progress of information production relating to the handover documentation to ensure it's available for handover.

Post Contract Support

Periodic monitoring by the site foreman Customer Care Team will enable early attention to unforeseen issues during the warranty period.

Protection of Completed Work

The sub-contractors will adequately protect all materials, equipment and finishes to the satisfaction of the main contractor. To prevent damage arising from weather conditions, construction activities, or any other cause whatsoever during the progress of the sub-contract works and until the completion of the Project.

The required level of, and type of protection required to protect completed works will be agreed by all parties, in advance of any work commencing.

Contract Administration and Handovers

Throughout the contract, the main contractor will maintain the updated, tracked and monitored Construction Programme for the works. In order to ensure that the programme is adhered to, the main contractor will hold regular on-site progress meetings with Trade-contractors. At these meetings, other issues such as quality and safety will be discussed in detail to ensure that they fully comply with the contract requirements. Prior to the handover of sections of works, the main contractor will carry out their own snagging of the works, with the aim of achieving "zero" defects at

practical completion. As built drawings, commissioning records and operation and maintenance manuals will be prepared and issued to the Contract Administrator, prior to completion of the works.

Reporting Procedures

The following will be tabled for discussion at each internal site meeting; The status and progress recorded against the contract programme. Current updated Construction Programme with, if necessary, actions for bringing works into line with the Construction programme. Weekly labour and plant returns.

A rolling schedule of approvals of all Design, Detailing and Materials yet to be approved. This schedule will be updated on a weekly basis.

A schedule of materials and projects manufactured off site, with status of percentage manufactured and anticipated delivery dates.

Conclusion

The above method statement has been developed specifically to demonstrate our understanding of the project requirements and the detailed methodology required to carry out a project of this nature.

It is not however all encompassing and prior to the commencement of each stage or phase of the construction works specific method statements will be produced and agreed with the main contractor as and when they are appointed.

SCALE BAR 1:100

0 1m 2 3 4 5 6 7 8 9 10m

SCALE BAR 1:200

0 2m 4 6 8 10 12 14 16 18 20m

SITE PLAN 1:200

VEHICLES

IMAGE	DESCRIPTION	PURPOSE	QUANTITY
	30 ft HGV DELIVERY VEHICLE WITH CRANE (DESIGN RIGID VEHICLE). THIS WILL BE ON SITE FOR THE DURATION OF UNLOADING IT'S CONTENTS.	DELIVERY OF ALL REQUIRED MATERIALS AND EQUIPMENT TO BE DELIVERED TO SITE.	1
	1.93m TRANSPORTATION VAN	TRANSPORTATION OF EQUIPMENT AND PERSONAL USED BY BUILDERS	1
	3745mm x 1700mm x 2170mm FORK LIFT	TO MOVE MATERIAL FROM DROP OFF LOCATION TO STORAGE LOCATION	1
	3100mm x 1500mm x 1520mm SITE DUMPER	TO MOVE EXCAVATED LAND AND ANY OTHER MATERIALS	1

HERAS FENCING (APPROX. 3m WIDE & 2m HEIGHT) WITH OPENING NEAR FRONT

SCALE BAR 1:500

0 5m 10 15 20 25 30 35 40 45 50m

LANDMARK DESIGNS

THE PILLARS
SLADE OAK LANE,
GERRARDS CROSS
BUCKINGHAMSHIRE, SL9 0QE
TEL : 01895 832 560
FAX : 01895 832 360
EMAIL :
INFO@ LANDMARK-GROUP.CO.UK

RTPI Chartered Town Planners
CIOB THE CHARTERED INSTITUTE OF BUILDING
IN PARTNERSHIP WITH LABC

CLIENT / JOB ADDRESS:

36 PARK VIEW DRIVE SOUTH
CHARVIL
RG10 9QX

DESCRIPTION :

OUTLINES LOCATION OF MATERIAL STORAGE, TYPE OF VEHICLES TO BE USED, AND MATERIAL DROP OFF LOCATION.

SCALE : 1:100	REVISION	DESCRIPTION	DRAWN BY	DATE
DRAWN BY : GSB				
DATE : 16/07/2018				
CHECKED BY : HM				
DRAWING NO. - GSB/36/2018/CONSTR				

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