

McCARTHY STONE

Life, well lived



Proposed Northern Elevation
1:1000A1

CONSTRUCTION MANAGEMENT PLAN

Development of Retirement Living
Residential Apartments.

Church Walk,
Gravesend,
DA12 2QU

Feb 2024 WT

CONSTRUCTION MANAGEMENT PLAN.

PURPOSE OF DOCUMENT

This document sets out the measures to be adopted by McCarthy Stone and their contractors through the build period of the construction of this development.

This document is submitted to Gravesend borough Council for the purpose of discharging condition 4, associated with planning application 20221328.

The Code of Construction Practice/Construction Management Plan shall include details, where relevant, of the following, including any other measures deemed reasonably necessary:

(a) Suitable mitigation measures to minimise noise pollution and vibration during the construction phase including the insulation of fixed plant and the silencing of vehicles and mobile machinery

(b) A Dust Management Plan to minimise emissions to air and to prevent nuisance from wind-blown dust including fencing and the dampening down with water of excavated construction and cover materials on site, and other areas traversed by plant vehicles and machinery

(c) A Construction Traffic Management Plan covering:

a. Details of numbers and routing of construction and delivery vehicles to / from site

b. Timing of deliveries

c. Parking and turning areas for construction and delivery vehicles and site personnel

d. Type and location of wheel washing and chassis cleaning facilities

e. Temporary traffic management / signage

(d) Details of the location of the proposed construction compound and location of the parking for construction workers.

(e) Details of security fencing and other site security measures

(f) Details of stockpile areas for building materials or for fill or removed topsoil

(g) A Construction Drainage Design Plan to identify the required devices to prevent construction run off from flowing into existing drainage

(h) Ecological mitigation measures

(i) Measures to be undertaken to protect any public sewers and water apparatus

(j) Details of vibration monitoring and mitigation during any necessary piling works

(k) Details of the location, form and visual appearance of any site hoardings along road frontages and footpaths

(l) Details of temporary construction or security lighting; and

(m) Monitoring and review provisions with the Local Planning Authority

(o) Details of hours of construction.

The construction of the development shall adhere at all times and be carried out in full accordance with the relevant approved document or any subsequent variations that may be approved in writing by the Local Planning Authority.

This document sets out how each of the above matters is considered and will be controlled through the construction phase of the development for the discharge of condition 4.

This document also covers other relevant matters McCarthy Stone deem appropriate for effective construction management and environmental matters associated with the implementation of the planning permission.

THE SITE

The site is made up of a former bowling club in Gravesend. It is surrounded by roads on three sides and rugby grounds on the west boundary. There is a co-op food in close vicinity along with other facilities. The boundaries facing the roads are secured by hoarding or Heras. A new access will be constructed off Ellerslie Road and used throughout construction and more the final development.



Figure 1 - OS Map



Site Location Plan
1:1250 @ A3



Figure 2 - Site Location Plan

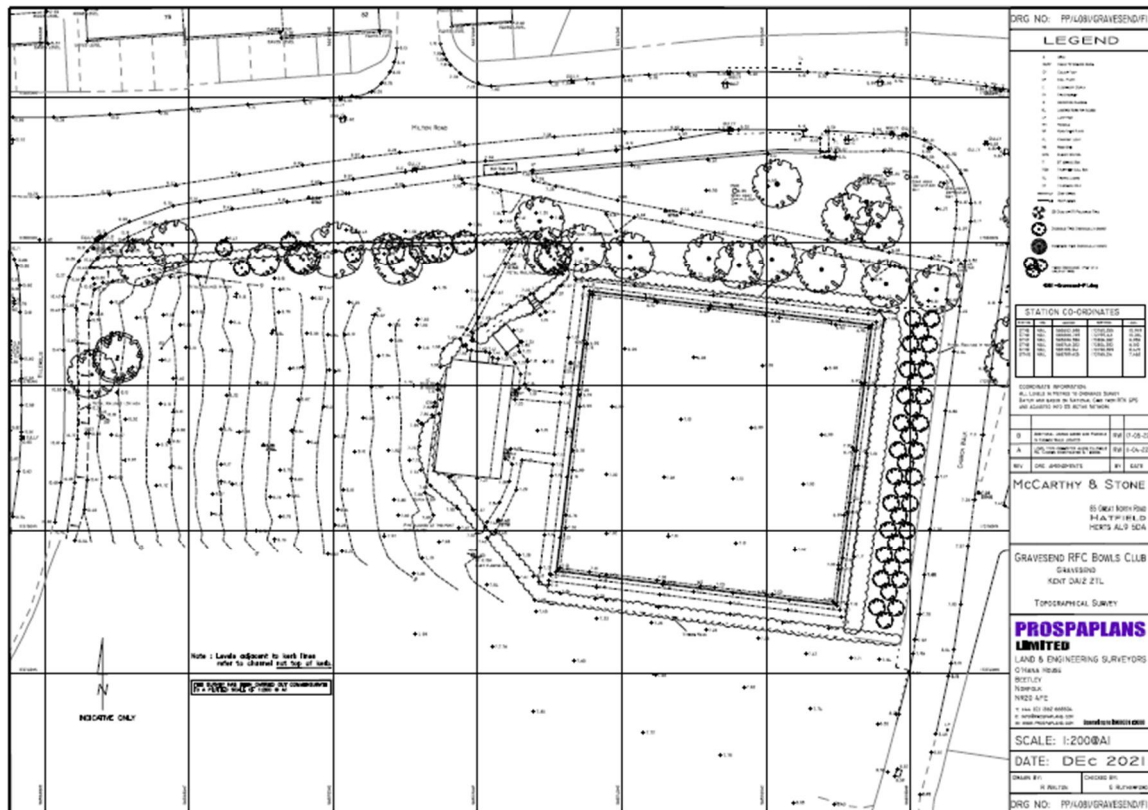


Figure 3 - Site Topographic and Services survey

HEALTH AND SAFETY PLAN

The environmental, health and safety plan will be finalised and agreed with all relevant parties prior to any works commencing on site and will include all necessary measures required to minimise the effect of the construction works on the surrounding buildings, roads, and the public. These measures will include the following: -

1. A dedicated traffic management system and method statement
2. Adequate signage on and off site
3. Specific parking restrictions
4. Proposals for phasing of deliveries
5. Proposals for restricting dust and noise

The enclosed method statement provides an outline summary of the proposed working systems and sequences, and it has been prepared to ensure that the common objectives of safety, quality and the timely completion are achieved. The site management team will prepare further more detailed statements, and more detailed programmes at the commencement of the works, and throughout the works as they progress.

CONSTRUCTION METHODOLOGY

Pre Start Investigation

Surveys have been carried out to verify the positions of existing services and any additional surveys that are required will be carried out prior for the commencement of the main construction works. The information will be plotted onto the existing site survey drawing and maintained as a record throughout the contract.

Notification of commencement will be issued to all Statutory Authorities. Drawings of existing services will be obtained and compared to the site survey.

A survey of dilapidations of all surrounding buildings, features, roads, etc will be carried out before any major works commence. This will consist of a photographic record and all necessary measures required to protect existing features will be put in place. McCarthy Stone will ensure that any areas of public highway will be made good to a condition equal to or better than it was prior to development that has deteriorated as a direct result of construction traffic serving the site. The scope and extent of the survey to be agreed with local highways inspector.

LOCAL ENVIRONMENT

The site is located in a predominantly Residential area. To the north there is a car dealer and some residential properties, behind these sits the railway. To the northeast is a church. To the east is a school, sports centre, and residential properties. To the south is the rugby grounds and to the west is residential properties. During the construction, it is of utmost importance that access and continuity of services for the residential and commercial premises is maintained.



Figure 4 - Local environment

Display of notices and warning signs

All signs will be kept clean and at a height where they are easy to read. All statutory requirements regarding posting of notices will always be complied with, including: -

- Notification of Project
- Public Liability Insurance Certificate
- Emergency and Contact Details and Telephone Numbers

The project sign is currently planned to be situated adjacent to the site entrance.

DUST MANAGMNET PLAN

Dust has the potential to be produced by the following activities on site:

- Demolition activities
- Stripping and relocation of materials
- Material handling and removal
- Stockpile preparation and 'wind blow' from stockpiles of material
- Site excavations for foundations and groundwork
- Storage of fine dry materials
- Construction traffic passing over exposed soil during works

The dust released from these activities will be localised as dust is relatively heavy and will fall in a short period of time, therefore mitigating the potential nuisance. However, the following mitigation methods will also be put in place to avoid or minimise the production of dust:

- Minimise surface areas of stockpiles to reduce areas exposed to wind pick up
- All construction plant and equipment will be kept in good working order
- Exposed soil, crushing areas and material stockpiles will be dampened, if necessary, using hoses and sprinklers
- Dust-generating activities and operations will be avoided during periods when the wind may carry the dust into sensitive areas
- Stockpiles of material will be located as far away as possible from sensitive properties
- The watering of surfaced and unsurfaced site access roads as necessary and keeping the surfaces in good repair
- Vehicles carrying loose aggregate and workings will be sheeted at all times
- Completed earthworks will be covered or vegetated as soon as is practical

- Local highways and site boundaries will be regularly inspected and cleaned if necessary to minimise dust deposits
- Ensure no unauthorised burning of any material occurs on site
- A wheel wash will be located at the site entrance and any dirt on a vehicles wheels will be washed before it leaves site.

The situation will be closely monitored, and should it become necessary at some future date McCarthy Stone will agree a monitoring procedure with the environmental officer.

NOISE MITIGATION

Noise and vibration will be minimised by using modern plant and equipment fitted with suitable silencers, by muffling of all breakers and using crushers in-lieu of impact breakers wherever possible. It is envisaged that the mains electric supply will be installed at the earliest opportunity so as the tower crane, site offices and Cement silos will be on the main power supply thus disposing with the use of generators. Plant will also be switched off when not in use and crushing zones will be situated away from the sensitive area to minimise the noise and vibration.

THE CONSIDERATE CONSTRUCTORS SCHEME

McCarthy Stone recognises the sensitivities associated within an urban environment and will therefore carry out all works in a manner to minimise the disruption to the surrounding local environment. McCarthy Stone sites operate under the Considerate Constructors Scheme which is operated by the Construction Industry Board as a voluntary scheme to improve the image of the Construction industry.

A Code of practice has been established for contractors to work to. The code of practice requires contractors to: -

Considerate

Everyone affected by the work to be carried out should be advised before it starts. Nuisance caused by deliveries, traffic and parking should be minimised. Diversions should be clearly signed with special attention paid to the needs of pedestrians and those with sight, hearing, and mobility difficulties.

Environment

The potential environmental and ecological effects of all operations should be identified and evaluated, and appropriate action taken to minimise all forms of pollution. Every effort should be made to reduce, reuse, and recycle waste. Materials should be obtained from sustainable sources and local resources used where possible. All operations should make a positive contribution to the natural environment.

Appearance

The company should be doing all it can to create an image of which the industry can be proud. All work areas including the perimeters and any facilities and company vehicles should be clean, tidy, and well presented. All materials should be neatly stored. Waste, rubbish, and litter should not be allowed to accumulate. Dusty operations should be managed to prevent any inconvenience. These procedures will be subject to daily inspection and daily tidying of all areas will be carried out.

Good Neighbour

The supervisors should interact proactively with the client and all neighbours throughout the work period to inform them about site activity and to avoid and pre-empt complaints. Any complaint should be logged and handled positively to achieve a satisfactory outcome for all concerned.

Respectful

Everyone within the company should help to create a positive image of all work areas and maintain respectable and safe standards of dress and behaviour. Improper conduct and language should be subject to severe disciplinary action. Pride in the supervision and appearance of all work areas, temporary facilities and the surrounding area should always be shown.

Safety

Systems should be in place so that construction work is carried out with care and consideration for the safety of the clients, public and those visiting and working on site. No work area should be a security risk to others.

Responsible

Considerate constructors should be aware of their obligations to personnel, act in a professional and conscientious manner and play a part in the development of the industry's future workforce.

Accountable

The company should promote the Scheme's aim of "improving the image of construction". Everyone associated with the company should understand and comply with the Code of Considerate Practice. The training and development need for all within the company should be identified and addressed.

The above code of practice is at the core of McCarthy Stone ethos.

TRAFFIC MANAGMNET PLAN

Access and egress from site

For this site access, for all vehicles, will be instructed to access site from Via Milton Road onto Ellerslie, thus allowing coordinated arrival. See below figure 5 & 6. This will minimise traffic affecting the local school and residential areas.



Figure 5 - Delivery Vehicles access to site

The gated site entrance and egress from site will be controlled by a gateman/banksman. The gate position will be set back from the kerb line to provide adequate vision splays as per the logistics plan (Figure 9). Signage will be provided to warn oncoming vehicles of the site entrance. All vehicles will be reversed onto the site and driven forward on exiting the site with no reversing onto the highway permitted. All vehicles' manoeuvres will be assisted by a suitably qualified banksman who will be allocated to control the safety of all road users including cyclists and pedestrians. Due to the ease of access, articulated vehicles will be regularly used on site but whenever possible rigid bed lorries will be used.

Proposed access routes to the site will keep site traffic on major roads to minimise the effects on traffic in the local area. All traffic will enter Gravesend on the A227 from the A2 corridor.

Please see figure 6 above with routes highlighted in blue for deliveries.

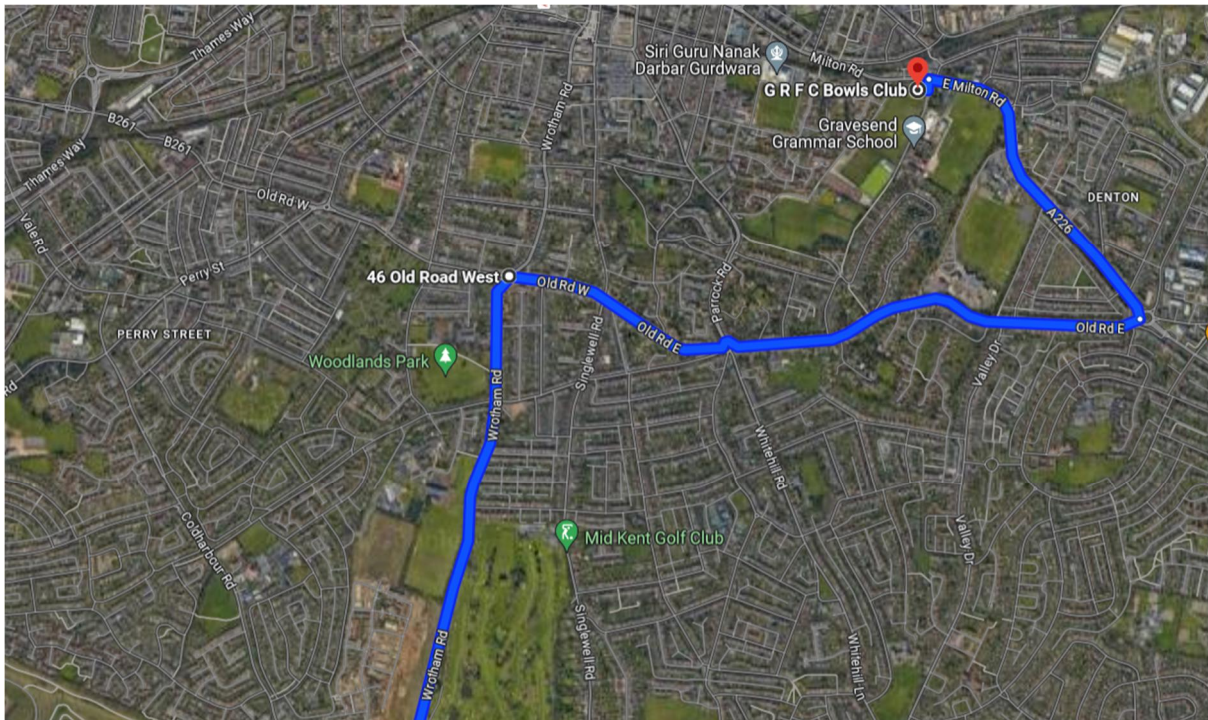


Figure 6 - Construction Traffic Routes

Within the site a hard surface, for loading & unloading areas will be tarmacked and maintained as soon as possible after the commencement on site to ensure wheels on vehicles are not ever allowed onto the soft covered areas. As part of the egress protocol all delivery vehicles will be inspected to ensure wheels and underbodies are clean. At the point of exit from the site wheel wash will be utilised to minimise the risk of transfer of site generated debris, mud and dirt is transferred to the highways.

The state of the roads will be closely monitored. In the event of any debris being deposited onto the road crossover a site operative will be mobilised to clean. In the event of debris being dropped on the highways mechanical road sweepers will be used to clear the highways.

Deliveries

All suppliers and Subcontract orders will contain the “Route to Site plan” (Figure 6) this information will be reinforced at the individual site induction of site operatives. It will also be reinforced that deliveries will not be accepted during peak traffic times, which includes the hours of school drop off and collection.

No vehicles will be allowed to wait on the street adjacent to the site. All deliveries will be scheduled to avoid queuing of vehicles on the surrounding roads at any time and should vehicles arrive whilst the unloading bays are full then they will be sent away, and the driver will be phoned once there is space available on site.

An application will be made to the AA to erect directional signage for the development, this is being developed at this time and is not available for the inclusion of this document. Once approved, the signage will follow the example of figure 8 below. Quantities and locations of the sign are determined by the AA.



Figure 7 - Example of a New Build Site Road Sign

All vehicles will comply with the legal requirements of the highway and therefore will not damage the adjacent streets.

The delivery schedule below (figure 8) demonstrates the number of anticipated vehicle movements throughout the life of the project. Which is broken down into the main stages of the construction Programme.

Delivery schedule: Gravesend		McCARTHY STONE <i>Life, well lived</i>	
Construction stage	Length of stay	Average number of daily trips by construction vehicles	Typical vehicle used
Site Welfare			
Site office and welfare units	4 hours per visit	4 trips over a 10 day period	Articulated lorry
Tower Crane	6 hours per visit	4 trips over a 10 day period	Articulated lorry
Silos	2 hours per visit	4 trips over a 10 day period	Articulated lorry
Sundry White van	20 minutes per visit	10 trips over a 10 week period	Transit van
Foundations			
Cart away excavated Materials	20 minutes for loading	4 trips per day over 10 days	6 wheel tipper
Reinforcing delivery's	1 hour per visit	1 trip per day over 3 days	Articulated lorry
Concrete	30 minutes per load	3 trips per day over 15 days	6 wheel concrete mixer
Foundation blocks	30 minutes per load	4 trips per day over 10 days	Articulated lorry
Foundations and cement	20 minutes per load	4 trips per day over 10 days	6 wheel tipper
Skips	30 minutes per skip	2 movements per week	6 yard skip lorry
Sundry White van	30 minutes per load	8 trips over a 6 week period	Transit van
Drainage	1 hour per visit	3 trips over a 15 day period	Articulated lorry
Aggregates pipe bedding etc.	20 minutes per load	6 trips per day over 15 days	6 wheel tipper
Superstructure			
Bricks	30 minutes per load	9 trips over a 20 week period	Articulated lorry
Blocks	30 minutes per load	7 trips over a 2 week period	Articulated lorry
Motor for silos	30 minutes per load	8 trips over a 20 week period	Articulated lorry
Floor slabs, roof slabs and stair units	1 hour per load	14 trips over a 20 week period	Articulated lorry
Windows & doors	2 hour per load	8 trips over a 4 week period	Curtainasided lorry
Balcony steelwork	2 hour per load	10 trips over a 20 week period	Rigid lorry
Sundry white van	30 minutes per load	20 trips over a 20 week period	Transit van
Skips	20 minutes per load	30 trips over a 16 week period	Skip lorry
Internal Finishes			
Electric goods	20 minutes per load	8 trips over a 16 week period	Curtainasided lorry
Plumming goods	30 minutes per load	8 trips over a 16 week period	Curtainasided lorry
Metal strudwork materials	1 hour per load	4 trips over a 8 week period	Curtainasided lorry
Plastering materials	1 hour per load	8 trips over a 10 week period	Curtainasided lorry
Kitchen 2nd fix carpentry materials	1 hour per load	6 trip over a 6 week period	Curtainasided lorry
Lift delivery	1 hour per load	2 trips over a 2 week period	Curtainasided lorry
De-corating materials	30 minutes per load	4 trips over a 8 week period	Transit van
Floor finishes	31 minutes per load	4 trips over a 8 week period	Curtainasided lorry
Sundry white van	20 minutes per load	20 trips over a 16 week period	Transit van
Skips	20 minutes per load	30 trips over a 16 week period	Skip lorry
External Materials			
Hardcore	20 minutes per load	2 trips over a 2 week period	6 wheel tripper
Sand and cement	20 minutes per load	4 trips over a 4 week period	6 wheel tripper
Paving and edging	1 hour per load	2 trips over a 4 week period	Flatbed lorry
Topsoil	20 minutes per load	2 trips over a 2 week period	6 wheel tipper
Soft landsacpe materials	1 hour per load	3 trips over a 2 weel period	Curtainasided lorry
Skips	20 minutes per load	10 trips pver a 16 week period	Skip lorry

Figure 8 - Delivery Schedule

Parking

Due to the tight site, there will be no parking available on site.

Contractors will be encouraged to park courteously and sensibly. The sharing of cars will be encouraged along with the use of public transport to reduce congestion. The use of local labour will also help reduce the impact of this project upon the local community.

Site set up and Logistics.

Figure 9 shows the proposed logistics plan for the construction of the Apartments with the material storage area shown for the stockpile of material and the Tower crane position and Jib radius shown.

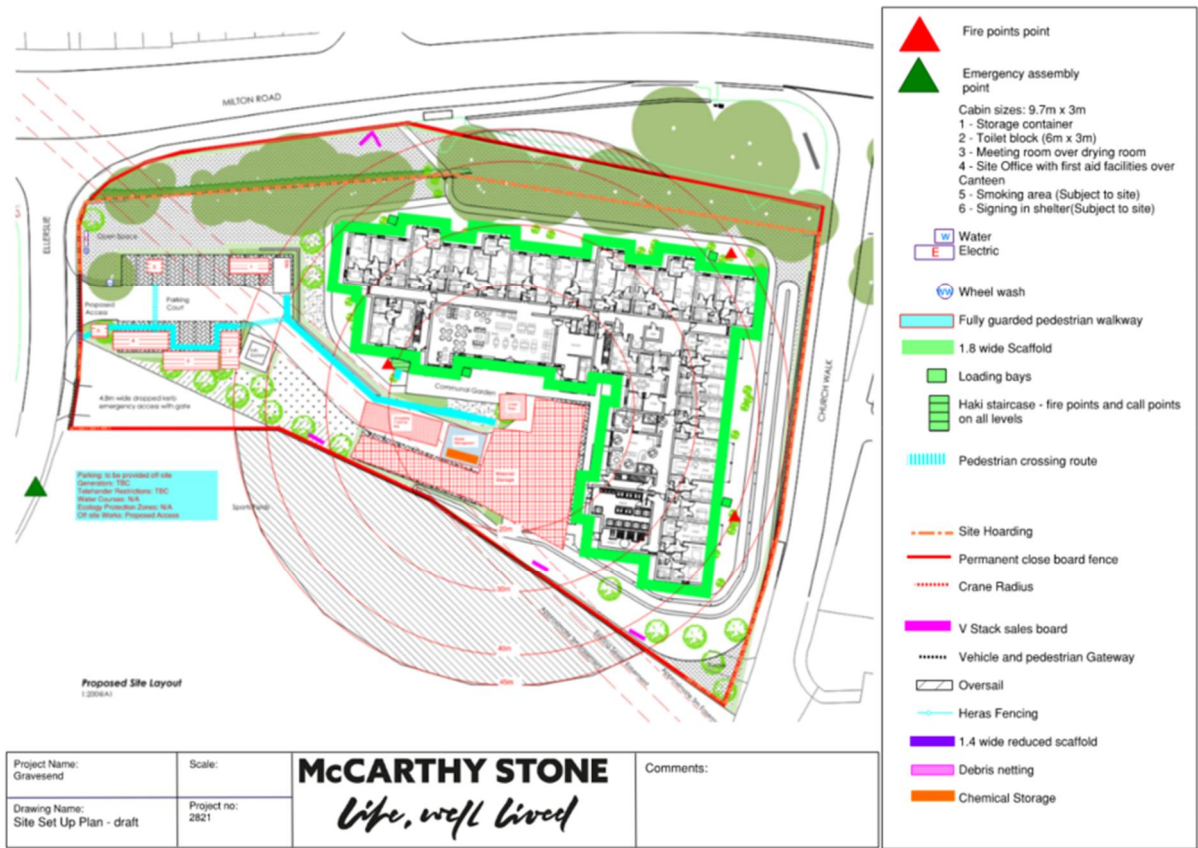


Figure 9 - Phase 1 logistics

The site accommodation complex will include an office for McCarthy Stone staff and include welfare facilities for subcontractors, operatives, and suppliers.

The site welfare facilities will be established and located in the West car parking areas of the site, with the main accommodation consisting of Jacked Legged cabins.

Construction personnel will access site from the proposed entrance from Eilerslie Road. The site will be fully secured using 2.4m high branded hoarding, Heras fencing and gates. Along the boundary with the rugby club a 2.4m permanent close board fencing will be installed with 5m netting above it. The hoarding will look similar to what is shown in figure 10.



Figure 10 - Hoarding Example

Drainage

An outfall for construction drainage will be built early in the sites progression allowing ground water to be directed/pumped into settlement tanks during construction before being directed into the main soakaway/drainage system on site.

Site Hours

The site hours will be as dictated by the planning permission. Construction plant will only be allowed to operate between the following hours: -

8am to 6pm Monday to Friday

8am to 1pm Saturday (Only if the programme dictates necessary)

No working allowed on Sundays and Bank Holidays.

Deliveries between 9am and 3pm to avoid clashes with School drop off and collections.

Security

The site will be made sufficiently secure to deter and prevent entrance to the site by unauthorised persons and to prevent removal of materials or goods from the site. Should the need arise consideration will be taken for the use of a Camera system or a manned guard.

Material Storage

McCarthy Stone will erect a suitable tower crane for the construction phase for offloading and dispersing material around the development.

The erection and dismantle of the crane will be contained within the site boundaries and will be subject to full planned operation and method statements.

On commencement of the works a specific method statement will be provided to control the delivery, storage, and handling of materials. A high priority will be placed on the safe storage and movement of materials around the building footprint.

Areas will be allocated for storage of materials and measures will be investigated to ensure the efficient use of the areas. Materials will be stored off-site wherever possible and practicable.

All materials will be stored in an appropriate environment with containers of liquid stored in a bunded area to prevent accidental spills.

The Site Manager will make adequate provision to avoid accumulation of Bulk materials on the site to prevent inconvenience or disruption and to eliminate the risk of fire, and dust. Both McCarthy Stone and Sub-Contractors will also ensure the site is left in a clean and tidy manner both during and outside working hours.

Lighting

Safety lighting and lighting for working will be positioned to provide a safe level of light.

Light for working will only be required during the winter months when the days are short and will only be operational during the site working hours.

Security lighting will be positioned to prevent a nuisance.

Ecological Mitigation Measures

At all times, McCarthy Stone will comply with all relevant Environmental Health Legislation and will take a pro-active approach to pollution by way of noise, dust, or airborne particles to minimise risk and disturbance to the site operatives and the public.

All skips will be regularly removed to registered tips as necessary. Individual skips will be provided for the main recyclable materials and waste will be segregated and placed into the appropriate skip.

Signage will be placed around the site to keep recycling to the front of people's minds, and to ensure that materials are put into the appropriate skips. Any surplus materials will be transported to another McCarthy Stone site for reuse.

Works that may affect breeding habitats of birds will be undertaken outside of the bird breeding season.

McCarthy Stone are committed to a year-on-year improvement in our environmental and ecological performance and waste control is one of our key performance indicators.

Existing Services

McCarthy Stone have carried out a survey to confirm and locate all services known to exist on the site and surrounding verges. All services found are plotted on a drawing and issued as an 'As Built' record. It may be necessary for trial holes to be excavated to determine depths.

McCarthy Stone operates a Permit to Dig System of Work for all excavations. No excavation works are to commence until the site manager or engineer has issued the Permit to the machine operator or the operative. This system of work ensures that the appropriate checks must be made in accordance with the latest regulations and the Health and Safety at Work Act.

Careful consideration and planning will have to go into the isolation and diversion of existing services, to ensure that all utilities are maintained to the existing homes during the construction of each phase. Prior to the commencement of each phase the existing service routes will be confirmed on site by digging trial pits, the statutory bodies will be mobilised to start the diversion works following demolition. All the residents will be kept notified of the works and made aware of the date and time of any loss of services whilst connections are carried out.

SEQUENCE OF WORK AND METHODS INCORPORATED

Introduction

This is only a guide to the sequence and methods of work and therefore may be liable to change due to design and employer's requirement amendments.

A Construction Health and Safety Plan will be prepared for the project ensuring, as far as is reasonably practicable, the health and safety of all persons at work and those who may be affected by the works. All contractors employed on the project will be reminded that this document is not definitive and is a 'live' document and as such it should be treated as a tool for use in the development of procedures required by Law and other safety regulations that may apply to the type of work to be undertaken.

A careful programme of works will be prepared, and this will sequence both the on and off-site works.

Enabling Works

Following vacant possession McCarthy Stone will secure the site area as described above to prevent third party entry ensuring the safety of the general public.

Demolition & Asbestos Removal

Following vacant possession, a demolition asbestos survey of the existing buildings will be carried out.

Once the site is secure the asbestos strip can commence, this will be carried out by a licensed contractor and all waste will be kept in secure sealed containers for disposal at an appropriately licensed waste site.

Following the issue of a clean air certificate the demolition can commence.

McCarthy Stone shall ensure to their satisfaction that all services to the structures to be demolished are disconnected and isolated away from the area. Prior to the commencement of the demolition operation, the Contractor shall satisfy him/herself that there are no persons present within the zone to be demolished. The demolition shall take place by a combination of mechanical and manual means. (Refer to Health & Safety documentation from specialist contractor).

Demolition rubble shall be crushed and stockpiled ready for reuse in the works the area. Arising's are to be recycled they shall be stored in agreed areas of the site.

Waste taken to tip shall be accompanied by a Duty of Care Transfer Document, unless hazardous when a Hazardous Waste Consignment ticket applies. Copies of these tickets shall be kept for two or three years as applicable.

Equipment Used

The plant and equipment employed to carry out the works full account of the works and the surrounding environment.

- 360 demo spec excavator with grab, shear and breaker attachment.
- Fuel Bowser.
- 8-wheeled lorries
- 40-yard skips
- Reciprocating saws, 4/9-inch grinder.
- Wheeled bin
- Various capacity roll-on/off containers
- All plant is maintained either by the manufacturers or our own fitters in accordance with the manufacturers' maintenance schedule.
- Daily checks are carried out by the operators and recorded on daily check sheets attached to the timesheets.
- Weekly checks will be carried out with copies of logs made available
- Any plant found to be defective will be taken out of service until it is repaired by either the manufacturer or the plant fitter.
- Plant is inspected weekly by the operators and the inspections recorded in the LOLER or PUWER register as appropriate.
- All plant has annual thorough examinations carried out by competent persons and a certificate of thorough examination is issued.

Excavation

Reduced level dig material and foundation arising's are classified inert and taken to the appropriate waste tip. Waste taken to tip shall be accompanied by a Duty of Care Transfer Document, Copies of these tickets shall be kept for two or three years as applicable.

Hardstanding

Will be constructed using crushed stone to a suitable thickness to support construction plant to be utilised in the main construction process. This will remain in place until it is possible to introduce a hard surface. The installation of the hard standings will reduce the dust and dirt produced by the site and makes the management of it much easier.

Foundations

Upon completion of the reduced level dig the excavation of reinforced strip foundations will commence.

Foundations will be excavated, and blinding placed as required. Earthwork's support will be installed to minimise excavations if required and to provide safe working areas.

Reinforcing cages, as necessary will be prefabricated on site and placed in position. Shuttering will be fixed and checked prior to placing concrete. Concrete will be placed, where possible direct from the concrete truck, and protected until the following day.

Provision will be made for any drainage and ducts that pass either through or under the foundations. On completion of the foundations, all grid lines and setting out will be marked on the bases to check that they have been cast in the correct positions.

Once the setting out has been completed the installation of the surface water and foul drainage connections will commence, this will allow provision for disposal of ground and surface water during the works. All underground drainage and ducts will be installed at the earliest possible stage and any protection required will be provided, including the re-routing of existing services, and the excavation of the new service trenches.

Job specific method statements will be requested prior to various aspects of the works being carried out.

Precast Floors

Precast floors will be used for the ground floors of the apartments and the Pre-Cast Concrete subcontractor will produce fabrication drawings for approval by the consulting engineers prior to manufacture. It will be imperative that this process is carried out as efficiently as possible to minimise the lead-in period for the precast floors.

Full method statements for the delivery, storage and erection will be produced prior to commencement of the work. These statements will address all safety related matters and will be strictly adhered to during the execution of the work.

Brickwork & Blockwork

Bricks and blocks will be delivered to site and off loaded where possible directly adjacent to the areas in which they will be required. Pallets of brick and blocks will be distributed around site using the Tower Crane, and they will be elevated into position and deposited on an appropriately designed scaffold loading bay. From there materials will be loaded out to the point of use by hand.

The materials will be inspected upon delivery for quality and damage; any sub-standard materials will be rejected.

The materials will be stored on their pallets and protected from the elements by shrink wrapping. The materials will again be inspected for quality and damage before being incorporated into the structure.

Care will be taken to establish the correct setting out the regular checks will be made for line, level, and quality as work proceeds.

Risk assessments for manual handling will need to be carried out to alleviate any risk of personal injury. Relevant precautions will be incorporated into method statements.

Roof Structure

Upon acceptance and handover of the brick work the roof works will commence. Perimeter edge protection and where necessary internal birdcage scaffolding will be installed by specialist subcontractors under the guidance of the roofing contractor.

After installation of the scaffold and acceptance by McCarthy Stone the roof trusses will be craned into location.

Roofing materials will be loaded out on the scaffold using the Tower Crane. Scaffold tower staircases will be used for access of operatives to the working area. Roof installation will follow the same installation sequence as that of the brick and block work.

Internal Finishes

A finishes programme will be produced in conjunction with all trades which will then be closely monitored throughout the duration of the project.

As soon as the building work is sufficiently advanced the first fix installation will proceed. The partitioning/dry lining will be set out in accordance with the agreed Architects details. During the plumbing first fix period all mains' services, such as hot and cold-water pipe work and heating, will be installed. Testing will be carried out to an approved standard in stages to suit the progress of the works.

The electrical first fix works will be co-ordinated with the plumbing and will consist of all necessary conduits and trunking to facilitate the wiring of the electrical installations. As soon as containment is sufficiently advanced wiring will commence.

All carpentry 1st fix items, i.e. door linings, frames, window boards, grounds etc will be fitted prior to the commencement of plastering and finishing. All finished items will be protected from damage during the construction process.

Plastering and dry lining works will progress in line with the progression of the M&E 1st fix items. Particular attention will be given to the following: -

- Confirming that all penetrations through walls have been completed made good and fire stopped if required.
- Ensuring that all reasonable shrinkage has taken place within the block work and there are no saturated areas.
- That all pre-finished elements are fully protected.
- That the building is sufficiently watertight and protected from the elements and ensure that the temperatures are in the correct range for plastering works to proceed.
- That good level of temporary lighting is provided.
- All areas of work are to be kept clean and tidy; this would be monitored on a day to day basis by the Site Management Team.

All redundant off-cuts of board/studwork will be cleared from the workface on a regular basis to an agreed location for removal from site for recycling.

On satisfactory completion of the dry lining and plastering, second fix activities will commence such as the installation of grilles/diffusers, fixing of sanitary ware and connection of electrical light fittings and accessories along with the installation of final items of specialist equipment in line with allied building finishes.

Throughout the services installation, routine inspections will be carried out to ensure that the services are being installed to the required standards within the requirements of the specification. Sectional testing will be carried out as the progress of the work. As each area is released and accepted the carpentry 2nd fix works will commence and follow the programmed sequence.

The decorations will naturally follow the carpentry 2nd fix and will be sequenced in this way. Prior to decorations commencing all rooms and areas will be thoroughly inspected for any defects once areas are cleaned and only then will the decorations commence.

Protection of all joinery items will be maintained until Practical Completion. Following the completion of the final fix, each unit will be inspected by McCarthy Stone and any defects found will be made good. The Unit will then be offered for inspection, and an agreed snagging list will be prepared, and the works made good.

Once the final snagging is completed the units will be handed over and locked up until each unit is ready to occupy.

External Works

Arrangements will be made in advance for the inspection and witnessing of tests by the local authority/NHBC to ensure that works are carried out in accordance with their requirements and to suit the construction programme.

Areas will be completed and handed over with the adjacent block or terrace. Adjacent areas that have yet to be completed will be fenced off until such time as they are complete, and the adjacent block is ready for handover.

Tree Protection

Within this construction are a number of trees are of importance that will be retained in the final landscaping scheme. Therefore, these will be segregated off via the use of heras fencing to offer these trees protection and the no dig areas will be adhered to.

Exit Strategy

McCarthy Stone propose to hand over the finished units as a whole development ensuring all works are completed prior to any occupations.

MANAGEMENT OF THE PROJECT

Subcontractor Procurement

To comply with the Construction (Design & Management) regulations 2007 all potential sub-contractors must be assessed by McCarthy Stone to ascertain their capability to carry out a project of this size and their Health and Safety procedures and records. Once a sub-contractor has been approved as capable, they are placed upon our approved list, from which all sub-contractors who are asked to tender packages are selected.

Each package will be tendered and from the returns a contractor will be selected who is competent of performing safely and efficiently.

General Site Manager Duties

The Site Manager/ Contracts Manager is responsible for the efficient and safe running of the site, he must:

- Ensure all method statements have been signed off and available before works commence
- Consider the environmental impact of the site on the local community.
- Arrange and manage the provision of safe storage for materials and chemicals to ensure that there are no detrimental effects to the environment.
- Check and maintain all boundaries.
- Consider the impact of noisy plant and operations and prepare mitigation strategies.
- Consider the safe movements of pedestrians and provide a safe environment.
- Ensure that all necessary signage has been erected for a safe and efficient site.
- Ensure that all necessary surveys of services are carried out and ensure that the drawings are correct.
- Display the employer's liability insurance certificates, evacuation procedures and all necessary certificates / signs required under the law.
- Ensure that there are enough welfare facilities provided.
- Manage the provision of first aid facilities.
- Manage and ensure all COSHH, Noise and Risk assessments are carried out, recorded and available on site along with all necessary safety booklets.
- Make available and maintain a supply of Personal Protective Equipment for visitors and ensure that the correct PPE is being used by the workforce on site.
- Manage the process of ensuring that the site workforce has the correct certificated for the task that they are performing and that they have been inducted into the safety and operational rules of the site.
- Manage the safe and tidy storage of materials
- Manage the progress on site to ensure that the client's aspirations are with regards to time, quality and value are achieved.

Internal Site Meetings

Weekly meetings will be held to discuss progress on site, update the current position related to the contract programme, discuss methods of carrying out forthcoming construction works, and record ways of overcoming any current problems relating to the process of the works. This will avoid any confusion or possible delays or abortive work.

At the meeting the internal procedures will be discussed, and the programme adjusted / updated should it be felt necessary, especially to make the running of the site more efficient.

Also, at the meeting all aspects of safety on site will be discussed, especially requirements of forthcoming site operations.

Reporting Procedures

The following will be tabled for discussion at each internal site meeting:

- The status and progress recorded against the contract programme.
- Current short-term programmes and stages recorded against contract programmes with, if necessary, actions for bringing works into line with the contract programme.
- Weekly labour and plant returns.
- A rolling schedule of approvals of all 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.

Weekly Subcontractor Meetings

At weekly intervals a fully integrated Subcontractors' meeting will be held, to highlight and discuss sub-contractor interfaces' and co-ordinate any problems.

Design Team Meetings

At regular intervals a fully integrated design team meeting will be held, to highlight and discuss sub outstanding information, and to co-ordinate any problems.

SUMMARY

In the above text, McCarthy Stone have set out to demonstrate their commitment to a well-planned and safely executed project. McCarthy Stone have explained the sequencing of the works and the methods that will be employed to deliver a successful project. The above trade method statements are of a general nature and indicative to a project of this type. Therefore prior to the commencement of each stage of the construction works, job specific method statements will be produced and agreed with the McCarthy Stone Site Management Team and the Planning Supervisor for inclusion in the Safety Plan.