

## **Outline Construction Method Statement for Benenden Primary School.**

### **Introduction**

The new Benenden Primary School is to be in the village of Benenden, Kent. It will be on a new greenfield site on the south side of the village through road, B2086.

This is a proposal for a new build, single storey Primary School with car park, playground and associated landscaping with new access road, footpaths, highway improvements and service connections.

The site currently is greenfield. The area has been developed by KCC with enabling works leaving it ready for the construction of the new school.

Adjacent to this area (south side of the B2086) is mainly open space with a recreation pitch to the west. North of the through road is residential.

The project also includes highway improvement works in conjunction with the new access from the village through road and additional pedestrian access routes to the school as well as new service connections.

The building is to be constructed using traditional construction methods over a steel portal frame. It is planned that all topsoil and subsoil is retained on site by adjusting the finished levels or spreading surplus materials on the Client's land. This measure means that the vehicle movements to and from the site will be kept to a minimum. The fact that the soil is not be removed from site will also assist in reducing the risk of mud being taken onto the local roads.

This document outlines the method and sequence of constructing the new school. The text should be read in conjunction with the Construction Phasing Plans, SK101 to SK106 included in Appendix 2.

### **Programme**

The works are planned to commence Mid-November 2018 and be complete to enable the school to install their fixtures and fittings at the start of August 2019. It is proposed that the new school will open for pupils in September 2019.

### **Access to the Site.**

The new school entrance, and the access to the site for construction traffic, will be off the B2086. The route that will be used is via the A227, heading north back to the M20 at Maidstone.

This route passes close to the current school, village centre and uses some smaller, quiet roads. Deliveries of plant and materials will take place only between the hours of 0800 and 1800 Monday to Friday, and 0800 to 1300 on a Saturday. There will be no working on Sundays or Bank Holidays.

During the term times when children will be travelling to school deliveries will be restricted to hours outside of 0830 to 0930, and 1430 to 1530.

There is currently a crossover at the location of the new school entrance. This was built as part of the enabling works and will be utilised during this construction.

### **Site Preparation**

Before works are started the site will be surveyed to locate any existing services. Any services will be exposed to confirm identity and location. The first area of work, which is mainly establishment of site facilities, will be securely fenced to ensure there is no risk of access by unauthorised personnel.

Initially a self-contained welfare unit (Oasis Unit) will be provided for the site operatives. A set of gates will be erected at the entrance off the main road (B2086) and a sentry cabin positioned adjacent for a traffic marshal/gateman to be permanently located.

It is proposed that the first area to be constructed will be the substructure. The construction area will be excavated to formation level, foundations excavated, and then mas filled with concrete. At the same time ducts for the main incoming electrical supply, and the HDPE water main will be laid for the future incoming connection.

This will be served by the enabling works executed previously giving access from the main road, hard standing, car parking and room for pedestrian routes.

### **Tree and Vegetation removal**

Access / egress onto the field where the proposed school building is being built is currently obstructed by some grasses and vegetation. The removal of the grass and vegetation will be prior to the ground radar survey. The existing reptile fencing will remain intact during the construction works to ensure there is no ecological impact. This will be checked and maintained by Kier Construction.

Heras fencing will be erected around the retained trees on and around the site as protection during the works.

### **Earthworks & Groundworks**

As noted, it is the intention that all materials remain on site by adjusting the final levels of the project. After removing the topsoil which will be spread on the adjacent field there will be a cut and fill exercise to adjust the levels across the site. This will be carried out by excavators and articulated dump truck.

### **Site Set Up.**

Whilst the main earthworks are carried out, the permanent area of car parking will remain. This will provide a suitable area for the site offices and welfare facilities to be erected. It is proposed that the cabins are single stacked on a hardstanding. The current arrangement allows for a clean area at the front of the site with a wheel wash in place when transferring out of the construction area / building footprint.

An area of hardstanding will be created to erect a mobile crane centrally to the construction area.

### **Building Foundations and Drainage**

As the new school is only single storey, it is envisaged that the foundations for the building will be strip foundations. These will be formed using an excavator and similar construction plant. The strips will likely be reinforced concrete poured using the bucket of the excavator or concrete pump / chute. At the same time the drainage under and around the building will be installed in preparation for steel erection.

### **Main Building Construction**

Once the foundations and drainage are complete, the steel frame will be erected using a mobile crane. It is envisaged that the crane will erect the building from one or two locations in the centre of the building.

Once the steel frame is built, then works to the roof and superstructure can start.

A scaffold will be erected around the outside of the building to enable the elevational finishes to be completed.

### **Main Services, External Drainage and Sports Pitch.**

During the period of internal finishes to the building, the main electrical and water services will be connected. These will be coming from junctions on the main service buried in the main road / highway. The drainage has already been installed as part of the enabling works with the school now just being connected to these runs as part of this phase.

### **Hard & Soft Landscaping**

Once the internal fit out has been completed and the scaffolding has been struck, the external finishes can begin. Final wearing course surfacing of the road and car park will be completed once all the landscaping has been finished and the site offices have been removed.

Areas of soft landscaping areas will be top soiled, and the levels made reasonable.

Security Fencing will be installed around the building and the new school site.

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### **Management Structure**

The project will be under the control of a site-based Project Manager (the PM). The PM will be responsible for co-ordinating the project and be the central point of contact. The PM will be supported by a Site Manager.

The Site Manager will be responsible liaising with the sub-contract Supervisors, arranging coordination and supervisor briefings, ensuring the works are carried out safely and to the right quality.

The Site Surveyor, with the support of a visiting senior surveyor, will be responsible for the financial control of the sub-contractors and advise on costs throughout the project.

### **Logistics**

It is proposed that during construction the Project Manager (or their designated operative) will act as Logistics Co-ordinator and will be responsible for:

- Managing the implementation of the Construction Traffic Management Plan;
- Vehicle Scheduling and 'just in time' deliveries;
- Checking for scheduled roadworks and reacting accordingly;
- Acting as a point of contact for employees, the Considerate Constructors Scheme, contractors and the public; and
- Advance notification to stakeholders and residents regarding construction deliveries and forecasted vehicle movements.
- Signage will be added to the entrance / exit routes. As below, banksmen will be used to get vehicles on / off site with minimal disruption. Deliveries will be outside common busy school times.

### **Manoeuvres and Banksman**

All deliveries are expected to be undertaken within the extents of the site. Vehicles will be able to enter, turn around and exit the site in a forward gear. In special delivery circumstances, typically the delivery of the temporary cabins, multiple banksman will be engaged to assist vehicle manoeuvres.

### **Delivery Booking System**

It will be a requirement of the supply chain that vehicle movements are notified in advance to enable the effective scheduling of deliveries and ensure the 'just in time' ethos of material on site. This will be monitored by the Logistics Co-ordinator to ensure that deliveries are prevented from occurring simultaneously.

### **Measures to Reduce Environmental Impact Noise, Vibration, Dust and Emissions:**

The Kier Site Team shall ensure that disturbances due to noise, vibration, dust and emissions arising from the construction works on the site are kept to an acceptable level.

The following control measures will be implemented:

#### **Control of Noise**

- Review the proposed plant and system of work to minimise the noise levels resulting from the activity;
- Control the noise at source. Ensure all plant used is fitted with the correct silencer/acoustic baffle where applicable and that the equipment is in good condition and maintained;
- Where possible, plan the site so noisy activities are furthest away from those who will be impacted upon by the noise generated;
- Noise levels to be regularly monitored by the site team both inside and outside the site hoarding;
- It is not envisaged, but if a need arises for an especially noisy operation, information will be provided to the Local Authority and the residents so that any disturbance is agreed in advance of the work being carried out; and
- Noise action zones will be identified within the site working areas if noise levels exceed 80dB.

- The main work is away from the residential area and separated by the main road. Vibration is unlikely to travel from the work area but may travel during loading / unloading. This operation will be carried out during working hours for minimal disruption to the surrounding properties.

#### **Control of Dust**

- Using construction techniques that minimise dust generation;
- Damping down to be utilised to control any dust that is generated, consideration also to be given to control of any run off;
- Road sub-base to be installed in the early stages of the contract to give vehicle routes that can be kept clean;
- Skips and Lorries will be covered prior to exiting the site to prevent any material being blown from the top;
- Use of dust extraction in work areas.
- Use of screening and water suppression for works which are likely to cause dust generation.
- Stockpiles of spoil to be watered in hot weather to stop dust travel. Piles will also be sited away from neighbouring properties for this reason.

#### **Control of Emissions**

- No fires are permitted on the site;
- All vehicle engines will be turned off when not in use or being unloaded;
- Where possible electrical and battery powered equipment will be used

#### **Measures to minimise the potential for pollution of groundwater and surface water;**

Accidental discharge of oil/diesel fuel is the biggest single source of pollution likely from this site. To prevent any accidental discharge into the water system the following will be adopted on this site;

- Consideration must be given to ensure the location of the store is as far as possible from any watercourse, spring or well and any drainage system.
- Oil must be stored in a suitable container of suitable strength to withstand accidental damage.
- Oil must be stored within a bund of sufficient size to contain 110% of any oil that may escape the container and must be constructed of a material that is impermeable to oil.
- All deliveries and extraction of oil must be supervised to ensure spillages are kept to a minimum.
- Where a fill point is outside of the bund area drip trays should be used.
- All tanks and bunds must be regularly inspected for any signs of damage and effective action taken as necessary. After heavy rain the bunds must be inspected, and any retained water removed as this will diminish the storage capacity of the bund.
- A stock of absorbent material should be held on site and staff advised in their use in the event of spillage.
- In the event of a spillage the relevant agency should be notified (hotline 0800 80 70 60) and measures taken to prevent the spillage from spreading.
- All operatives and visitors to the site are to be advised of the above during their Site Induction.

Toxic products like paints, polishes, cleaning products etc. must not be disposed of by emptying them into the drainage system. Provisions for the disposal of these products are provided on site for separate collection and disposal. Where during the works existing, drains are broken and/or made redundant they shall be suitably repaired and/or removed or sealed to prevent pollutants from entering the system. Manhole covers on site should be marked blue for surface and red for foul water, this will enable the appropriate action to be taken in the event of a pollutant entering the system. Designated COSHH lockers will be within the welfare area with inventories kept of materials onsite.

**Highways Considerations, details of access, circulation, parking within the site for all contractors and other vehicles engaged in construction operations;**

Actions to be taken:

A traffic management plan formed. This is to include the proposed routing of all delivery vehicles to the site, any temporary access arrangements, highways licences or consents including hoarding etc.

A pre-commencement condition survey of the highway.

Warning signs will be erected on the Benenden Road of site access and construction traffic in accordance with the code of practice for signing and guarding.

The above signage will be located to ensure that all public vehicles approaching the site on Rolvenden Road are made fully aware of the construction activities taking place and the likelihood of construction vehicles turning into and out of the site.

All site staff will be inducted before being allowed to enter the site, giving clear instruction on site traffic circulation.

The site set up will ensure that all vehicles will be able to enter and leave the site in a forward gear. A banksman will be employed at the site entrance.

All site staff vehicles will be parked within the site compound area, away from construction work.

**Arrangements for public liaison during the construction works;**

Advance signs of work commencement will be erected on the Benenden Road at least two weeks before the work is due to commence.

Letter drops to properties near the works will be delivered also in advance of the works commencement as instructed by the Client.

Any further notifications will be given as instructed by the Client throughout the construction phase of the works.