



Construction Method statement Olive Primary School. Bignor Street Park, Cheetham Hill, Manchester

Development shall be carried out in accordance with the approved construction method statement.

The purpose of the Construction Method statement (CMS) is to outline our approach in managing environmental impact on the proposed construction works at Olive Primary School, our aim being to minimise disruption to our immediate neighbours (residents on Heywood Street, Tamerton Drive and Bignor Street) as well as our wider neighbours.

We anticipate keeping and reusing as much existing material on site as possible to limit the amount of movements on and off site and traffic within the local area. All other material will be transported from site to a licensed recycling station with the emphasis wherever possible being to.... Reclaim, Reuse and then recycle.

Project Overview.

The project at Olive Primary is the construction of a purpose built two form two storey school and associated external works.

Construction techniques include for piling and ground beams / pad foundations, underground ducted service connections and associated drainage. Steel frame, precast floors, stairs and roof with associated PV panels and a brick façade. Externally there will be new hard and soft landscaping with adjustments to the existing play surfaces and associated fencing.

Neighbourly Relations

The site off Heywood Street as mentioned above has immediate neighbours and we will liaise directly with them along with the wider community. Maintaining good neighbourly relations is assisted greatly by good communication, and by keeping third parties regularly informed of the site activities which are likely to impact on adjoining residents. Conlon Construction have found that listening to reasonable concerns and demonstrating a considerate and professional approach will always maintain a well- balanced relationship.

Considerate Constructors Scheme

Conlon Construction will register and comply with the requirements of the Considerate Constructors Scheme for the duration of the contract. A contact board will be displayed outside of our site providing contact details. This will include names and telephone numbers of key construction staff including the site manager so that neighbours' and the general public can contact us should they have the need to do so.

Lighting during construction.

During construction we will utilise the lights of machinery / low level lighting positioned on the building / temporary accommodation angled so they don't impact on any neighbours / highway users. All lighting will be set up so that they are only on during working hours.

Protection of trees / protected species during construction.

The existing trees will be protected and fenced with heras fencing to prevent unauthorised access in line with ecologist recommendations.

Prior to any tree removal in line with the proposed plans we will have a licensed ecologist (Amenity Tree) on site to carry out a Bat Roost Assessment of all trees to be removed. The Bat Roost



Assessment may recommend the need for a summer emergence survey/s on the identified roost features in trees and this will be implemented in line with ecologist's recommendations.

Also, a breeding bird appraisal / survey will be required prior to any tree removal to ascertain the importance of the site to breeding birds at that time. This may require hand searching and dawn observations depending upon the time of year which will also be carried out in accordance with the ecologist's recommendations.

Construction programme for the works.

The proposed construction programme for the works is September 2023 until October 2024

Erection and maintenance of security hoardings

The perimeter of the site will be secured utilising heras fencing and the existing gates and fencing as marked on the enclosed plan.

Management of surface water drainage during construction.

The new surface water drainage associated with the new areas of hardstanding will be installed at the earliest opportunity once the bulk excavation is complete so this can be utilised to limit the effect of any surface water. Wherever possible surface water resulting from excavations will be filtered before it enters the surface water drainage system.

Dust & dirt mitigation measures during the construction period.

Due to the nature of construction activities, it is inevitable that some dust will be encountered during our works at Olive Primary, however; the following measures in line with the principals of IAQM Guidance on the assessment of dust from demolition and construction will be taken/ considered as appropriate to greatly mitigate the impact of dust due to construction activities.

Access to the site and importantly the site set up (compound) have been carefully planned to ensure minimal travel of vehicles when entering and leaving the site thus creating a reduction in dust and mud deposits.

Traffic Management and Movement corridors will be in place to minimise movements of heavy plant thus reducing dust and mud.

Site Management

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site;
- Record and respond to all dust and air quality pollutant emissions complaints;
- Carry out regular site inspections to monitor compliance with air quality and dust control

Dust Mitigation Measures

- Work in accordance with our procedures, record inspection results
- Increase the frequency of site inspections by those accountable for dust when activities with a high potential to produce dust and emissions are being carried out and during prolonged dry or windy conditions;
- Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and ensure that the action taken to resolve the situation is recorded



Preparing and Maintaining the Site

- Plan the site layout so that machinery and dust-causing activities are located away from receptors, as far as is possible;
- Avoid site runoff of water or mud;
- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below;

Operations

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation,
- Use of covered skips where possible.
- Minimise drop heights from loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Dust Management

- Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site;
 - Avoid dry sweeping of large areas;
 - Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport;
- ***Control and monitoring of noise emanating from the site during the construction period.***

We are aware of our responsibilities in being good neighbours and ensuring noise from our works are kept at a bare minimum. All reasonable steps will be taken to ensure we carry out adequate measures in minimising any inconvenience.

In line with Section 3.7.1.4 Construction / demolition phases of Manchester City Councils Planning and Noise Technical Guidance Oct 2022 we will restrict construction or demolition activities to daytime periods and have finite start and finish times. All noisy works (i.e. those that are audible beyond the site boundary) will be restricted to the following hours to minimise disruption:

- Monday - Friday: 8am - 6pm
- Saturday: 9am - 1pm
- Sunday / Bank holidays: No work

These restrictions will also apply to deliveries/collections to the site.



By utilising set working hours for activities on site as well as deliveries to the site, respite will be provided for local residents and businesses near to the development. We will limit noise and disruption to local residents as much as is feasible but it will occur during development works, Therefore, it is important for us to keep an open dialogue and placate any complaints or grievances.

The project is registered with the Considerate Constructors Scheme and we will follow their guidelines to minimise disruption to residents and businesses and follow their code of conduct for employees on site so that we don't unduly upset local residents and/or businesses.

We will consult with the community via letters, site notice boards and newsletters as part of our community consultation strategy on a minimum of a quarterly basis. We will also communicate via the above means in advance of any of hours works.

Noise control measures shall always be addressed in advance of the works during the planning and assessment phase of the works and specific measures shall be incorporated in method statements.

Operations with high noise levels that may impact upon construction operatives and residents / neighbours in nearby premises shall be managed with appropriate noise reduction measures locally at the works location. Construction works shall be limited to the site working hours as described above.

The requirements described within The Noise at Work Regulations 2005 and the British Standard BS 5228 Noise and Vibration Control on Construction, and Open Sites will be adhered to fully.

Conlon will limit as much as is practical high noise operations and where this is unavoidable, measures will be taken such as the selection of plant and equipment or work processes which does not emit high level noise or equipment which is fitted with silencing/anti-vibration equipment.

Noise monitoring will be carried out for the sensitive receptors nearby and records maintained.

BS 5228:2009 Part 1 Significance Criteria (Table E.1) Residential Properties			
Assessment category and threshold value period (LAeq)	Threshold value, in decibels (dB)		
	Category A	Category B	Category C
Night-time (23:00-07:00)	45	50	55
Evenings (19:00-23:00 weekdays) and Saturdays (13:00-23:00)	55	60	65
Daytime (07:00-19:00) and Saturdays (07:00-13:00)	65	70	75

Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

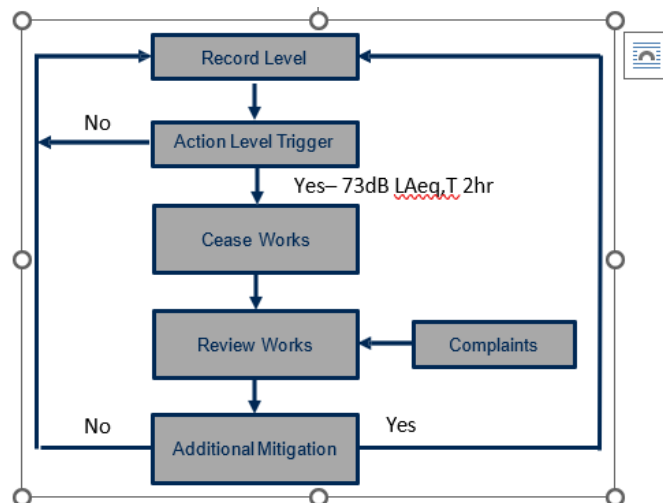
Noise surveys were undertaken by AEC to confirm current background noise levels around the construction site to provide baseline noise levels. These surveys have established that the ambient noise levels measured at the monitoring stations varied throughout the day with an average 50 dB LAeq.

BS 5228-1, Table E.1, Note 3 states that these limits apply to residential receptors only. As commercial receptors are considered to be less sensitive than residential receptors, the magnitude of impact is considered to be reduced for a given construction noise level compared to those stated in the table above.

Active monitoring will be in place during construction. It is expected that active monitoring will be required until the building has been enclosed, at this point internal fit works will be a low risk.

In line with communications, we agree to a Category B higher level threshold of 70dbA with a trigger level of 73dB LAeq,T 2hr, will be set at the site boundary, this will be the point at which construction activities cease and sources of exceedance identified and a review of activities carried out to determine any additional mitigation that can be implemented to reduce noise levels.

Noise Monitoring and Action Process



Hours and days of construction work for the development.

In line with recommended hours, the working periods will be Monday to Friday during the hours of 07:30 to 18:00 (Any works and activities likely to be audible outside of the site boundary will not commence until 8:00am) and Saturdays 09:00 to 13:00. No work will be carried out on Sundays and bank holidays. On occasion during some activities (such as concreting) we may need to extend the mid-week hours to a later time or work Sundays. In such instances we would seek consent from Manchester Environmental Health department should it be necessary to work outside of the above hours and inform the immediate neighbours. Prior consent would be required and will be obtained for any noisy works taking place outside of the proposed working hours specified above.

Noise Mitigation Measures

The quietest and lowest impact processes that are reasonably practicable will be employed on-site in the undertaking of all construction works and in accordance with the best practise under BS5228:2009+A1 2014, Part 1. Measures that can be implemented as a means of minimising noise include:

Construction Mitigation

- Works to be carried out within permitted working hours.
- Close liaison with local residents and businesses.



- Consideration of alternative construction methods for high risk activities.
- Use of work equipment designed to reduce noise such as oil pulse impact drivers for use in steel erection.
- Keep internal haul routes well maintained and avoid steep gradients;
- Minimize drop height of materials;
- Radios and other noise-generating devices are not permitted on site.
- Keep voices and conversation outside of the perimeter of the Site to a minimum and low in volume.
- Specific construction activities maybe required to achieve the specification finish and as such may cause extended periods of works.
- Noise monitoring to be used on site boundary and records maintained.
- Careful selection of construction methods and plant to be investigated and utilised, for example, breaking-out of concrete structures using, where possible, low noise methods such as munching or similar, rather than percussion breaking;
- Neighbourhood liaison will be undertaken with occupiers of residential and business properties that are likely to be affected by the works, informing them in advance of the nature and expected duration of the works and the proposed hours of work.

Site Plant

- The quietest vehicles, tools and machinery shall be used as far as is reasonably practicable;
- Early connection of temporary mains to reduce use of site generators;
- Avoid unnecessary revving of engines and switch off equipment when not required;
- Start-up plant and vehicles sequentially rather than all together
- No engines left running whilst vehicles are stopped on-site;
- Local residents and businesses will be advised of the start and finishing dates and times of particularly noisy activities and these will be timed to minimise the disruption to local residents as far as possible.
- Electrically powered plant will be preferred, and used where practicable, to mechanically powered alternatives. All mechanically powered plant to also be fitted with suitable silencers, as appropriate;
- Where feasible, all stationary plant should be located so that the noise effect at receptors is minimised and, if practicable, every item of static plant when in operation should be sound attenuated using methods based on the guidance and advice given in BS 5228-1;

Complaints Procedure

Although the measures set out within this CEMP are intended to minimise the impacts of construction activities on the local community by ensuring that neighbouring residents are informed of the construction programme and timescales through either door step introduction, newsletters and regular communication during the works, it is possible that complaints may be raised concerning construction activities. As previously detailed, contact details and information concerning construction will be provided to local residents, and the Project Management will be available to meet and explore issues with concerned parties directly via appointment.

Any complaints received will be taken seriously and addressed immediately by the construction team and designated Site Managers. We will endeavour to respond to all complaints within 12 hours of the receipt of the complaint. (As a minimum all complaints will be responded to on the next working date) All complaints that are received will be reviewed in regular site meetings to ensure that any required actions are communicated to all employees, as appropriate.



Records of complaints are recorded within our compliments and complains management System as well as through Considerate Constructors Scheme of which Conlon have registered this site.

Vibration Management

Conlon will seek to maximise any opportunities to reduce the levels of vibration leaving site or impacting on existing structures. Where possible, vibration will be minimised through design, specification and the use of alternative methods particularly where there are sensitive receptors adjacent to the works, e.g. schools, public areas, sites of special scientific interest (SSSI's) and listed buildings.

Vibration Risks - High vibration levels over sustained periods can cause damage to buildings, roads and utilities. Lower vibration levels can cause nuisance to residents. Vibration may also cause disruption to wild- life and damage to geological and archaeological sites. Vibration is a safety critical issue adjacent to railway lines.

Evaluate the Potential for Vibration

Identify what is on or around the site which may be affected by vibration. Obtain dilapidation surveys for sensitive structures. Some construction activities will cause significant vibration through the ground, e.g. piling, plant and vehicle movements. The transmission of vibration is highly dependent upon ground conditions, where there is underlying sloping hard strata this can transmit vibration underground undetected for several hundred metres until the strata is nearer the surface.

Construction Vibration Assessment Criteria - Overview

BS 5228-2:2009 'Code of practice for noise and vibration control on construction and open sites – Part 2', gives guidance on vibration levels that could be used to assess the likely impacts of construction activities, including piling, on the environment and people. The main vibration impacts could arise from piling activities or heavy construction vehicle movements near sensitive receivers (typically within 20m). Annex B of BS 5228 Part 2 gives guidance on the significance of vibration effects in terms of human response to vibration and structural response to vibration.



Construction Vibration Assessment Criteria

BS5228 Part 2 Guidance on Human Response to Vibration Levels	
Vibration Level	Effect
0.14 mm/s	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less sensitive to vibration
0.3 mm/s	Vibration might be just perceptible in residential environments
1.0 mm/s	It is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if prior warning and explanation is given to residents
10 mm/s	Vibration is likely to be intolerable for any more than a brief exposure at this level

BS5228 Part 2 Transient vibration guide values for cosmetic damage		
Type of Building	Vibration Level 4 Hz to 15 Hz	Vibration Level > 15 Hz
Reinforced or framed structures Industrial	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
Heavy commercial buildings		
Unreinforced or light framed structures	15 mm/s at 4 Hz	20 mm/s at 4 H z
Residential or light commercial buildings	increasing to 20 mm/s at 15 Hz	increasing to 50 mm/s at 15 Hz

Vibration Management

To ensure that the potential impact of Vibration from construction, this will be monitored during construction until the point in construction works where vibration risks have been mitigated (building construction completed, fit out ongoing)

Vibration Trigger Level

Vibration trigger levels have been identified in line with BS 5228 Part 2, the trigger level for vibration will be set at 1 mm/s, this is the level by which it is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if warning and explanation is given to residents.

The trigger levels will also be advised and agreed by the appointed Vibration Consultant, the following are general principals:

Alert Level	Preliminary trigger levels	Corresponding actions
Amber - Potential for Complaints	Vibration PPV 1 mm/s	<p>An alert should be sent to the site manager so that they are informed of the exceedance. In the event that Amber Alert levels are triggered, this should be considered an actionable event to prevent a Red Alert level.</p> <p>Conlon will ascertain the source of vibration that triggered the alert by reference to the timing of the alert, site diaries and a knowledge of current site activity.</p> <p>If it is believed that an Amber is triggered as a result of works on the site, a review of the works being carried out should be carried out to determine the best practicable means used to manage levels and details of corrective actions going forward – if necessary.</p>

Vibration Mitigation

Where trigger levels are exceeded, appropriate mitigation will be implemented to reduce the impact including:

- Review working methods when working adjacent to sensitive areas or structures.
- Inform Neighbours - consult residents or workers in the vicinity of the works to explain the type and duration of the works.
- It might be possible to schedule the work to avoid particularly sensitive times, with works that generate vibration restricted to 08:00 to 17:00.
- Monitor vibration levels during the works
- Consider vibration caused by plant and vehicles when establishing traffic management – early black topping / provision of engineered haul roads can significantly reduce vibration from traffic movements.

Contractor's compounds and other storage arrangements.



We anticipate positioning our site compound establishment as shown on the enclosed site cabin / logistics plans. Commencing initially with a minimal set up whilst the site car park / compound areas are prepared.

All storage and lay down areas will be within the constraints of the site. All site traffic will be managed, and wherever possible, loading/unloading activities will take place within the secured compound area. Where possible, vehicles will access and egress the site in a forward gear but when this cannot be achieved, vehicles are only permitted to reverse from or onto the adopted highway under the strict supervision of a suitably trained and experienced banks person

Provision for all site operatives, visitors, and construction loading, unloading, parking and turning will in the main be within the site during the construction period.

Minimal parking will be provided on site. In the event on street parking does take place, this will be undertaken in a considerate manner with no obstruction in whole or part of the footway or any points of vehicle access. Junctions will also be kept clear.

Deliveries will be carefully coordinated to arrive 'just in time' and managed to reduce the potential of delivery vehicles having to park or queue on the adopted highway. On arrival they will be quickly guided into site utilising the existing entrance off Heywood Street directly onto site.

Where possible, we shall utilise an onsite one-way traffic management system for all site traffic and provide 'lay down' areas and movement corridors for heavy plant within the constraints of the site. In compliance with current Health and Safety legislation (CDM 2015) we shall be compliant with regards pedestrian segregation and will provide for the services of a competent banksman.

Arrangements during the construction period to minimise the deposit of mud and other similar debris on the adjacent highway.

We are fully aware of our responsibilities in maintaining good housekeeping. The site will be kept in a clean and safe environment and the areas and roads external to the site boundaries will receive regular inspection. Our site management will inspect all perimeter fencing on a daily basis with a final inspection at the end of each working shift.

All vehicles will be inspected before leaving site and where appropriate, wheel cleaning will be carried out using pressure washing.

We shall regular carry out inspections of all roads directly adjacent to our works and will ensure we keep all roads clean as work progress.