



Activity No: 64 Piling (D500 / 1000 Drop Hammer Rig)
Contract No 2726 **Site Name:** Butterstile Close, Prestwich
Author: Robin Eva

StartDate 01/11/2022 **End Date** 30/11/2022
Project: Foundations
Updated 25 Jan 2023

Method Statement

DESCRIPTION OF WORKS:

Installation of 92 No. 220mm diameter bottom-driven steel cased cast in-situ reinforced concrete piles driven by drop-hammer to an assumed depth not exceeding 10 linear metres to achieve a Safe Working Load of 150 kN.

SEQUENCE OF WORKS:

The site works will commence with the setting up of equipment and commencement of piling.

The piles will be set out in accordance with the design requirements.

Install 92 no. 220mm diameter steel cased cast insitu piles by bottom-driving closed end steel tubes to a set, filling from the top (at the same time as the ground beams are concreted) with designer mix concrete and 2 no. reinforcing bars per pile.

The piles are permanently steel-cased and sealed so that concrete or grout cannot leak/leach into the ground. In the report dated January 2023 by LK Consult, however, item 3 Conclusions reads: "LKC has completed additional site investigation to confirm the depth to bedrock and thickness of superficial deposits on site. LKC considers that given the nature of made ground materials on site and the underlying stiff clay there is no significant risk to the underlying aquifer from both made ground and future piling activities".

Driving method - by internal drop hammer operated from a track-mounted piling rig.

Steel tubes are 2.00m lengths which are socketed and welded together.

The leader or starter tube is crimped and welded at one end to provide a closed end and is partially filled with gravel as ballast for driving purposes.

The starter tube is placed in position (setting out positions to be provided by the Principal Contractor). The drop hammer weight is inserted into the first tube from the winch and the tube is carefully bottom-driven into the ground, making sure it is plumb and its position is maintained.

The driving weight is removed from the tube and the next (follower) tube is welded into position.

Welding of successive tubes is carried out by a diesel- or petrol-operated welder/generator.

Driving of the tube is continued as described above, gradually and progressively increasing the drop weight.

The piling hammer is withdrawn from the pile tube after a "set" is reached by means of a mechanical winch.

ACCESS:

Access to the site will be provided by the Principal Contractor.
Emergency routes will be as directed by the Principal Contractor.

COMMUNICATION:

Daily briefings will be held with staff and sub-contractors on-site.

We have assumed that the Principal Contractor will be responsible for the following:-



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- Site security
- Fire prevention
- Fire plan, means of escape and fire extinguishers, in particular related to adjoining property
- Provision of welfare arrangements which include toilet and washing facilities
- Emergency procedures
- RIDDOR
- Ensuring all services are dead or are located and identified before commencement of work
- Sealing of all redundant drainage runs and manhole covers
- Obtaining notices
- Provision of barriers to prevent ingress in unsafe areas of site
- The structural stability of the building during works
- 110v power supplies to our point of work and site lighting
- Safety signage, notices and Form 10rev
- Arrangements for and protection of surrounding access roads, access ways and adjoining property
- Site induction on site health and safety issues and site rules

All accidents will be reported to the Principal Contractor.

SUPERVISION:

All piling activities will be supervised by our operatives.

TRAINING:

Piling activities will be undertaken by our trained and competent staff.

All staff have taken CITB Health & Safety Awareness training.

SAFETY OF OTHERS:

Other construction works should not be affected by the piling works.

The Principal Contractor is requested to ensure that:-

- all other site trades are advised of our works
- no materials are stored in our area of work
- 110v power is provided to our work area, if required
- adequate and safe means of access will be provided to all work areas
- fire extinguishers are provided
- no gas bottles are stored or used in the area of work
- protection is provided to prevent falls of materials into all areas of work.

Our chargehands responsible for the works will ensure that:-

- materials are lifted or moved in a safe manner
- the works are inspected at the end of each working day
- all operatives will wash their hands before eating or smoking.

EMERGENCY PROCEDURES:

In the event of an emergency arising from fire, the site foreman will: -

1. Instruct all operatives associated with the piling works to immediately stop works, isolate power tools and evacuate the site via the nearest emergency fire escape route.
2. Operatives shall assemble at the designated fire assembly point identified during the Health and Safety Induction Training.
3. Operatives shall remain at the designated fire assembly point until instructed otherwise by the Principal



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Contractor's fire marshal.

In the event of an accident arising, the following emergency procedure shall be implemented: -

1. The injured person shall raise the alarm by shouting Help or seek assistance from the nearest available work colleague.
2. First Aid shall be administered by the immediate site foreman and, if required, the emergency services shall be summoned by the site foreman. Notification shall be made to the Company via the site foreman or person(s) appointed on his behalf.
3. A suitable entry shall be made in the First Aid Book, both in the employer's book and the Company's book as soon as possible after the accident. It shall be the injured person's responsibility (or persons appointed on his behalf) to make the entry.

ENVIRONMENTAL CONTROLS:

The Principal Contractor shall generally be responsible for the following: -

1. Safe means of access and egress to and from the workplace.
2. Safe and adequate lighting of the work area.
3. Work area free from obstruction not associated with the piling works.
4. Use of available and appropriate welfare facilities throughout the installation period.

Risk Assessment

E = Eliminate R = Reduce I = Inform C = Control P = Public O = Operatives C = Contractors S = Staff

Hazard Identified

E R I C

Potential Harm

P O C S Existing Controls

Potential Ground
Contamination from
cementitious concrete

☒ ☐ ☒ ☒

Contamination of Water
Course

☒ ☐ ☐ ☐

Enclosure of concrete in sealed
steel piling tubes

☒ ☐ ☐ ☐

No significant risk - see LK Consult
report Jan 2023

Risk Factor for this Activity

L

E = Eliminate R = Reduce I = Inform C = Control P = Public O = Operatives C = Contractors S = Staff

Hazard Identified

E R I C

Potential Harm

P O C S Existing Controls

Work with welding /
hot works equipment

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Wear appropriate PPE (as
identified in specific risk
assessment)

Risk Factor for this Activity

L

E = Eliminate R = Reduce I = Inform C = Control P = Public O = Operatives C = Contractors S = Staff

Hazard Identified

E R I C

Potential Harm

P O C S Existing Controls

Working in a noisy
environment

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Monitor noise levels

☐ ☒ ☐ ☐

Wear appropriate PPE (as
identified in specific risk
assessment)

Risk Factor for this Activity

L



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Hazard Identified

E R I C

Potential Harm

P O C S

Existing Controls

Working with concrete / cement

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Refer to COSHH procedures for hazardous substances

☐ ☒ ☐ ☐

Wear appropriate PPE (as identified in specific risk assessment)

Risk Factor for this Activity

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Hazard Identified

E R I C

Potential Harm

P O C S

Existing Controls

Working with heavy or unwieldy loads

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Employees to adopt tandem lifting for loads over 25kgs where possible

☐ ☒ ☐ ☐

Use mechanical means for lifting heavy or awkward loads where practicable

Risk Factor for this Activity

L

E = Eliminate R = Reduce I = Inform C = Control P = Public O = Operatives C = Contractors S = Staff

Hazard Identified

E R I C

Potential Harm

P O C S

Existing Controls

Working with lifting devices

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Use mechanical means for lifting heavy or awkward loads where practicable

Risk Factor for this Activity

M

E = Eliminate R = Reduce I = Inform C = Control P = Public O = Operatives C = Contractors S = Staff

Hazard Identified

E R I C

Potential Harm

P O C S

Existing Controls

Working with vibrating machinery

☐ ☒ ☒ ☒

Minor Injury

☐ ☒ ☐ ☐

Take regular breaks

Risk Factor for this Activity

M

Additional measures to be taken

Action By:

Date

Operatives to maintain clear working areas, free from obstructions

Site Manager

11/10/2022

Regular liaison between occupiers and contractor site management to coordinate construction

Site Manager

11/10/2022

Power tools operated by trained and competent persons

Site Manager

11/10/2022

Plant required for the Activity

D500/1000 drop-hammer Piling Rig

Welding equipment

Light weight beating hammer

PPE required for operatives undertaking the Activity

Helmet

Safety Boots

Safety Goggles

Welding Visor - Fume extracting

Protective Clothing

Gloves

Hearing Protection



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Tools used for work activities

Maximum Exposure Not to Exceed 400 Points Person Per Day

Tool	VM	PPM	PPH	EAV 2.5M/S	ELV 5 M/S	Duration of Use	PEP
Stihl Saw	2	0	8	750 Mins	3000 Mins	60 minutes =	8
Oxy Flame Cutting Equipment	1	0	2	3000 Mins	12000 Mins	60 minutes =	2

No of Persons 1

Minutes 120 *Total Points* 10

VM = Vibration Magnitude

PPM = Points Per Minute

PPH = Points Per Hour

EAV = Exposure Action Value of 2.5Metres/Second

ELV = Exposure Limit Value of 5 Metres/Second

Duration of Exposure

PEA(8) = Partial Exposure Action Value

PEP = Partial Exposure Points

Site Managers Signature

Review Date

Operatives involved in the Activity

Signature: Shaun Platt _____ Date: _____

Signature: _____ Date: _____

Signature: Jack Platt _____ Date: _____

Signature: Sean McEnaney _____ Date: _____