CZWG

APPLICATION TO DISCHARGE PLANNING CONDITION

Former Garages ,1-16 Canfield Place, London NW6 3BT

2461-00-BR-1014

Discharge of Planning Condition 14 -Impact piling

CZWG Architects
1 Naoroji Street
London, WC1X 0GB

+44 (0)20 7253 2523
czwg.com

0.0 **INTRODUCTION**

This document, 2461-00-BR-1014, has been prepared for submission to London Borough of Camden Regneration and Planning to discharge planning condition 14 in relation to planning permission 2017/1910/P dated 11th October 2021.

1.0 **DISCHARGE OF PLANNING CONDITION – 14 IMPACT PILING**

(Prior to relevant stage of works)

Prior to commencement of any impact piling, a piling method statement shall be submitted to and approved in writing by the local planning authority. The Method Statement shall be prepared in consultation with Thames Water or the relevant statutory undertaker, and shall detail the depth and type of piling to be undertaken and the methodology by which such piling will be carried out including measures to prevent and minimise the potential for damage to subsurface water infrastructure, and the programme for the works. Any piling must be undertaken in accordance with the terms of the approved piling method statement.

2.0 **REVISION RECORD**

Issue:	Date:	Details of Amendment:	Author:	Checked:
P01	01.09.2022	Initial issue	SG	MBD

3.0 **CONTENTS**

In order to discharge the above condition, the following information is attached;

1. Piling Works Method Statement
2. Piles Location & Sequence
3. Piling & Demolition Programme
4. Thames Water Drainage Drawing
5. Thames Water Main Water Drawing

4.0 **SUPPORTING NOTES**

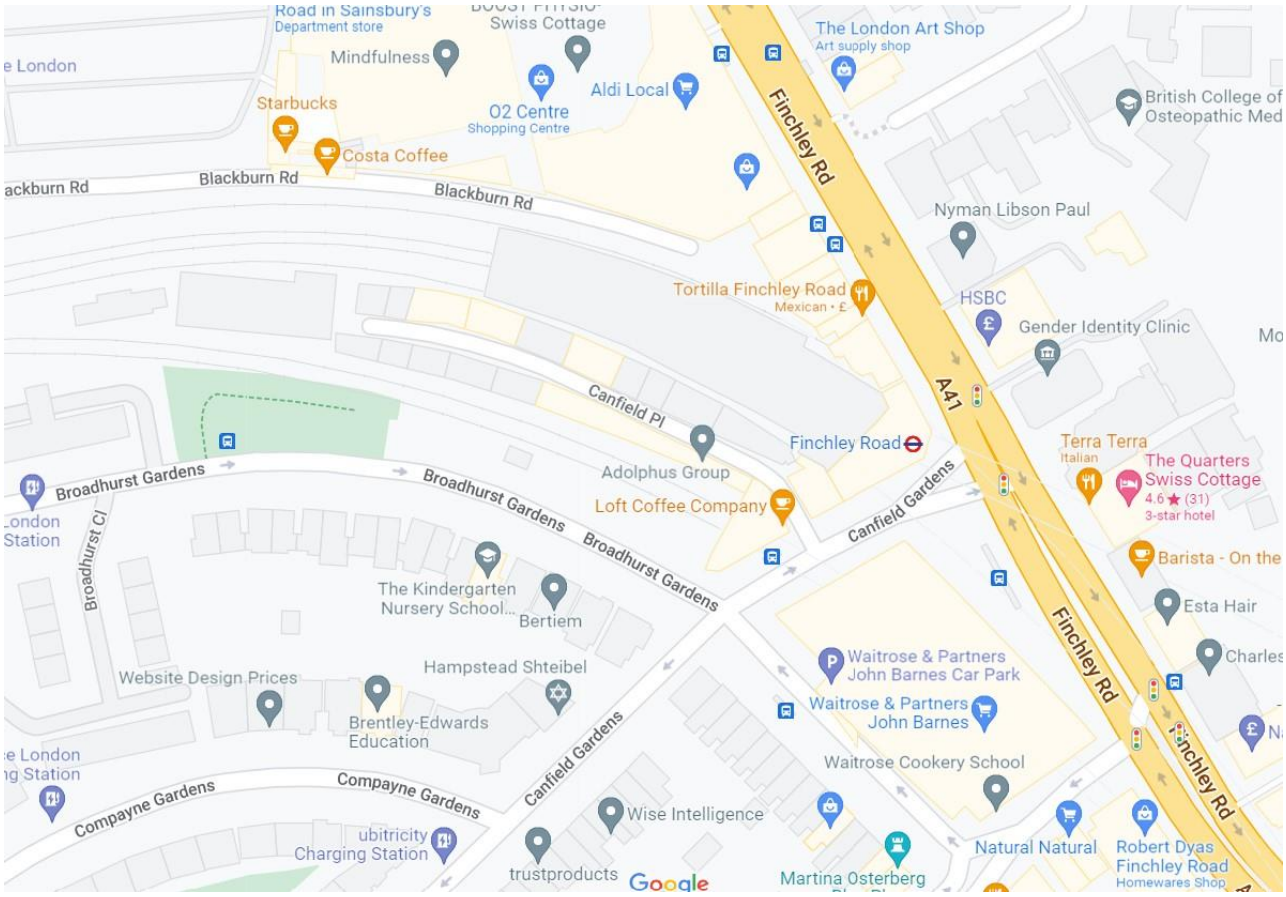
The condition refers specifically to IMPACT piling. However, the piles being installed will be using the case and auger method which is extremely low in both impact and vibration. This will eliminate any possible damage to adjacent footings or existing drainage as may be present. Therefore, it is not considered that this condition requires to be discharged. However, through the abundance of caution and to demonstrate the safeguarding of the existing below ground public utility infrastructure and controlled waters in accordance with the requirements of Policy CC3 of the LB of Camden Local Plan 2017 the above information is being submitted.

Works Method Statement
GSS Piling Ltd

	Project Name: 10-24 Canfield Place, NW6 3BT	**Project Number: 22208**
	Works: Mini Piling works	**Method Statement Ref.:** 00

	GSS Contacts:		
	Health & Safety Manager	Bradley Olivo	07917 841152
	Operations Manager	Paul Burr	07973 399252
	Site Manager/Operator	TBC	

	Date of Issue: 12-07-2022	Rev 00: Mini piling			
	00	12-07-2022	Paul Burr	Devji Bhuva	
	Revision	**Date:**	**Author GSS CM**	**Reviewed by GSS CM**	**Accepted by MC**



Any sub-contractor or third party working in conjunction with GSS Piling under the remit of this document is not relieved of their statutory obligation to provide, monitor and review their safe system of work and should provide their own method statements and risk assessments. Any revisions to documents referencing this document must be agreed with GSS prior to execution with a minimum notice period of 3 days.

Contents

1 General Situation

1.1 Proposed Start Date of Task and expected duration

It is anticipated that GSS Piling works will commence on TBC.

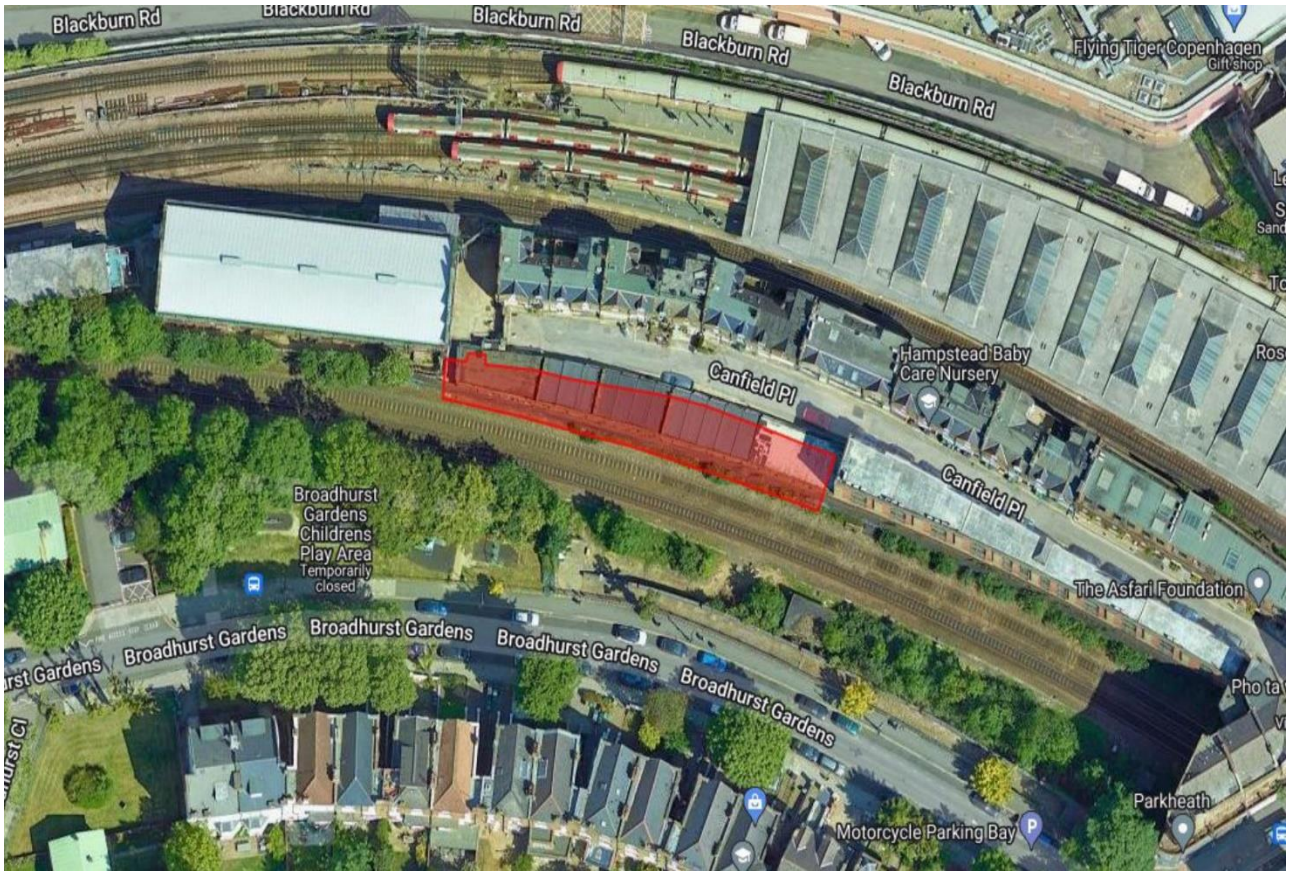
All operatives are to be fully pre-briefed prior to commencement and to have read and fully understood the method statement prior to signing off. Should there be any questions or further information/explanation required this is to be given on a one-to-one basis until suitably clarified.

All personnel are to be inducted by the Main Contractor before any works commence.
The crew will all carry their relevant CSCS/CPCS cards with them.
The job will be serviced by a crew of 4 for the piling works.

1.2 Description of works

GSS Piling will be carrying out the following works.

- Installation of 35(TBC) x 508/450mm diameter piles to a maximum depth of 22.0M (TBC). The attendance to the piling rig will be carried out by McCabe Builders unless instructed otherwise prior to mobilisation.
- This method of mini piling is low impact and virtually vibration free and is ideally suited for installation of piles around existing structures and service tunnels, services, and rail & tube lines.



Due to the restricted nature of the project all materials will be delivered on a just in time basis.
The piling rig and in-hole kit will be delivered to the side of site and be unloaded via Hiab.
All items of plant and equipment will be delivered with a means of self-unloading either via Hiab's or tracking plant off the lorries via ramps.

1.3 Site Information

10-24 Canfield Place, London, NW6 3BT
Client: - McCabe Builders

1.4 Attendances

The following attendances will be provided by the client:

- Safe access and egress routes to the works.
- Security of site.
- The surveying of ground for existing services.
- WELFARE.
- Pile setting out.
- Clearing of all spoil.
- Pile reinforcement and concrete.
- Suitable piling platform for the Klemm 702 to work on.
- A permit to dig which complies with the FPS requirements.

The following attendances will be provided by GSS Piling.

- 1No. Klemm 702 and In-hole kit.
- 4 x crew members.
- Tools and casings.
- Barriers to segregate the work areas.
- All PPE required to safely carry out all the above operations.

2 Method Statement

The presence of other trades on site will be a factor to consider ensuring that tasks can be undertaken safely. Method Statements and Risk Assessments should be reviewed prior to starting each activity to ensure that other trades or site conditions do not compromise the safe system of work. All works to be barriered off for the piling zone.

Mobile Phone Policy – no mobile phones will be allowed to be used on site, all operatives to use designated areas to use mobile phones. All operators of safety critical plant to have mobile telephones switched off when operating the plant.

2.1 General Sequence/Method.

GSS piling will mobilise to site on confirmation that the work areas are ready to commence.

The piling matt / platform will have been installed prior to our mobilisation and suitable for the rig to track /work on. This must be signed off and certified before piling operations commence. Any loose or waterlogged ground must be removed before the above is laid. The above must be installed as per TWD.

All Plant and tools will be stored within the site boundary and away from the Network rail retaining wall.

Piling set up

All items of static plant will have a fully bunded area below to allow for catching all accidental releases of fluid from the plant. This will be achieved by a bespoke made bund or a proprietary drip tray being placed under the plant. Size will be a minimum of the following. 100% of the liquids within the plant +80%.

All material storage zones will be marked up on the ground and will be kept as clean and tidy as practically possible.

A skip is to be provided by the main contractor to dispose of the general rubbish.

All transport companies will be made aware to call the GSS piling Foreman prior to arrival.

Due to the network rail asset and proximity of the lines behind the retaining wall, the Klemm 702-2 will be set up on the pile positions adjacent to the wall, head on. This will keep the bearing pressure being transferred to the wall minimal. This set up will occur on the piles within the zone of grid lines 2-4 inclusive.

All pile setting out will be double checked as per QA records before drilling operations commence.

Piling Works

There are 40 TBC x 508/450mm diameter piles to be installed in the location shown below in the drawing extract. Once the final number of piles is known a drawing will be issued by the engineers for review.

The site target is for 2-3 piles per day per.

The piles are being installed using the case and auger method which is extremely low in both impact and vibration. This will eliminate any possible damage to adjacent footings or existing drainage as may be present.

The piling rig will be tracked into the piling zone and set up on a pile position against a pre-planned sequence issued by the rig foreman.

The pile positions will be set by the Engineer and will be checked against drawing position only by the GSS rig foreman.

Piling operational sequence is set out below in full.

The pile spoil will be cleared by the attending excavator supplied by McCabe Builders as stated above and cleared away from the piling zone immediately, no build up of spoil is to be allowed so as not to surcharge the network rail wall.

Any rebar projecting from the piles is to be capped immediately on excavation and caps are to be replaced if knocked off or broken.

Rebar cages for the piles will be placed by the attending excavator on final removal of all augers and scraping the area clean so that it is safe to work. All cages will be 2 part sectional with no part being greater than 3.6M in length, this will eliminate any chance of the reinforcement cage accidently falling against the Network Rail asset.

A sleeve is also to be placed down each of the piles adjacent to the retaining wall, this will provide a separation and movement joint between the newly installed piles and the existing structure. The sleeve will be made up of a 1.2mm smooth bore metal sleeve installed prior to concreting.

2.1.1 Selection of Plant

GSS Piling Ltd will provide all necessary plant to carry out the works. All operatives using mechanical plant will have the required training and/or certification. The plant will include all necessary transport.

Piling will be undertaken using a Klemm 702-2 as pictured below. Rig dimensions attached below for your information purposes only.

The excavator to be supplied by the attendance crew will require a certified lifting eye on the hitch.

Klemm KR702-2R

GSS Innovate to create

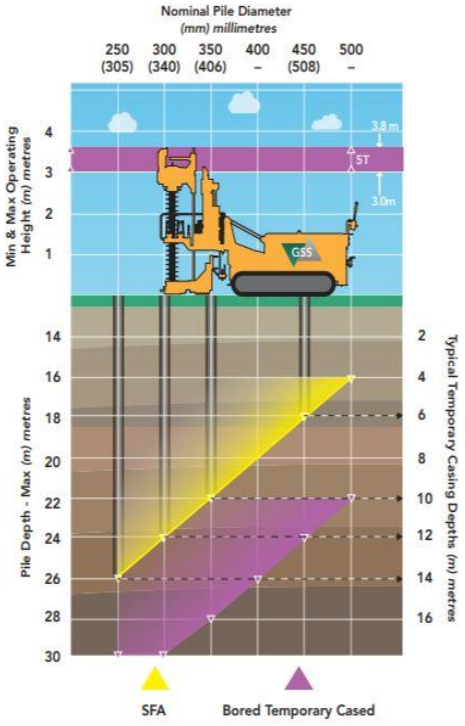
Technical Capabilities

Rig		
Tractive Force max	kN	20
Crawler Speed	Km/h	1,8
2-rib Grouser Plates	mm	200
Overall Width	mm	750(1250)
Ground Pressure	N/cm²	7,14*
Length of Crawler Units	mm	1950
Length (Axle to Axle)	mm	1400
Ground Clearance	mm	210

Power Pack	PP95DS	PP115F
Diesel Engine	DEUTZ TCD 2012 L04 2V	DEUTZ TCD 4.1 L4
Certified	EEC 97/68 EC Stage 3A USA EPA/CARB Tier 3	EEC 97/68 EC Stage 3B USA EPA/CARB Tier 4i
Rated Output	95KW	115KW
Fuel Tank Capacity	150ltrs	250ltrs

Emissions	PP95DS	PP115F
CO	0,565 g/KWh	0,059 g/KWh
NMHC + Nox	3,712 g/KWh	1,694 g/KWh
Particulates	0,097 g/KWh	0,006 g/KWh

Weight (tonnes)		
*with Rotary Head KH 20/KH 22	5.0 (KH20)	5.0 (KH22)
Power pack on wheels/tracked	2.8/3.0	2.8/3.0



The performance and depth limitations is clearly subject to the ground conditions encountered, please contact for site specific detail.

Jet wash

The jet wash will be used to keep the public highway and all plant clean and free from spoil and concrete. High pressure jet washers are to be used carefully and any damage to the discharge hose is to be reported immediately and the jet wash is to be isolated until repaired.

Concrete Pump

Concrete pump works

The below is a guide of the operation but this will be overridden by our concrete pumping procedure that will also be issued within the crews start up pack.
The pump to be used will be like the one pictured adjacent and will be operated by a trained, competent operator.
The operator will be in the following task specific PPE hearing protection either ear plugs or ear defenders, safety goggles as a minimum.

The pump line will be set up from 100mm rubber reinforced lines and all joints will be pinned together with safety clips. This will be installed in a position that will limit the amount of line needing to be striped daily which in turn will limit the amount of manual handling.

The pump is to be started and checked and greased before the piling commences each day. All mechanical operations are to be checked prior to confirming concrete.

The pump requires a grout liner or primer pump to be run through the lines before the concrete can be pumped through, the grout/primer pump acts as a lubricant. The grout will also be used to lubricate the stem of the augers if required.

Communication will be verbally as this site is so small or via hand signals. If this proves difficult then 2-way radios will be used if permitted.

Both the pump operator and the piling foreman are to keep a continual watch for blockages within the pump lines. If the pump lines become blocked, then the operator is to place the pump in to reverse to release the pressure from the lines. Once this is done the operator is to slowly release the wing clips on the joint and then free the 2 parts of the line. If at any time the operator feels there is still pressure in the line, then the clip should not be released until the pressure has had a chance to disperse.

If the pump becomes blocked on washout extreme care is to be taken to when splitting the lines. The compressor is to be turned off before any other works can be continued and all pressure within the airline is to be released from the compressor end of the line.

A duel levered pressure gun is to be used and the following procedure is to be used.

- The valve nearest the airline is to be opened 1st to suck the blow out ball back to the rear of the chamber, once no more air is coming out through this valve the valve is to be closed.
- The second valve is then to be opened but with the outlet positioned away from the operator towards a safe area. Open the valve very slowly until no more air releases from the valve. If no air has come out from the 2nd valve, there may be a separation blockage in the line.
- In the case of a separation blockage the line is to be gently knocked with a hammer to release the blockage or pressure build up and the operator is to pay close attention to the air being released from the valve. Once the build-up has been released normal procedures can commence.

Once the blockage has been cleared the pipeline is to be reinstalled with the safety clips again.

On completion of the days piling the pump will be washed out in the spoil stockpile within the site. This will allow the water to disperse and the concrete to harden. This will then be cleared to the tipper as hardcore.

The hopper of the pump will be washed out into a proprietary bund under the pump, and this will be capable of storing the entire washout of the hopper. This will be left to cure overnight and then broken out in the morning and disposed of as above. The water will be recycled by using it to make the Primer pump liner.

2.2 Deliveries & Traffic Management

All deliveries will be called in as just in time deliveries due to the restricted nature of the site. Deliveries will be booked in with 48hrs notice as per TMP supplied by McCabe Builders.

Access is required down to the end of the road 24 hours a day for the network rail building .No delivery vehicles will be permitted to block the road, this will be strictly marshalled at all times by McCabe builders and GSS Piling.

All delivery vehicles will be marshalled by a GSS operative/Traffic marshal, under no circumstances are the lorries to unload unattended.

The delivery zone needs to be cleaned daily or after any heavy soiling of the area.

Concrete lorry's will dry scrap their chutes only and wash off back at the batching plant. No washing of chutes is permitted.

All deliveries will adhere to instructions given by the site team and any deviations will be relayed to the site team as soon as practically possible.

All drivers are to contact the site team before arrival.

The rig will be delivered by a 64TM Hiab and the Inhole equipment on a 26T rigid with a 54TM Hiab.

All other delivery vehicles will be called in by the site Foreman and instructed on the route to be taken and where to park. All vehicles will be banked and Marshalled by a member of GSS Piling team and barriers will be installed to segregate the public from unloading operations if required.

Waste removal from site will be by McCabe Builders.

2.2.1 Storage and protection

All protection works to the surrounding buildings and the footpaths and road are to be carried out by McCabe Builders and suitable for the piling rig to travel/work on.

Storage areas are to be agreed with the on-site management team/GSS Piling Foreman and all materials are to be stacked and left safely overnight.

All plant and materials will be transported directly into the piling zone.

No Plant or materials are to be stored at the front of site, once the lorry has been unloaded the materials are to be transferred into site immediately.

2.3 PILING OPERATIONAL PROCEDURES Case and Auger Piling

SETTING UP OF RIG ON A PILE POSITION

- The rig is to be positioned adjacent to the pile peg/marker and the ground around the peg is to be checked for stability.
- The surrounding area is to be checked for overhead obstructions.
- Once the above has been carried out the mast will be tilted vertically by the operator from the control arm side of the rig. At no time during this operation is the frontman to place himself in the blind spot to the front of the rig.
- The frontman will indicate to the operator via either hand signals or verbally until the mast is vertical in both planes. Again, as mentioned previously the front man is not to put himself between any part of the mast or rig where a crush injury could occur.
- Once the mast is set up vertically the head is to be travelled up and down to ensure it is clear of all points and does not clash with any part of the existing column.
- The marker peg is then removed from the ground prior to any drilling operations commencing.

Drilling operations – Cased SFA Piling.

- On completion of the above setting up procedure the drilling operations will commence.

- The safety cage will be opened by the Frontman and will be controlled only by the Frontman not the operator. This will be done for every auger or casing to be installed and closed before the rotation unit is engaged.

- A lead casing will be lifted into the clamp foot with the attached cat head on the rig or via the attending excavator. The lifting of the casings and augers will be controlled by the Frontman on the rig.

- The casing will be detached from the lifting tackle and secured by the clamps of the rig. The sub will then be rotated to match the hole alignment of the casing. **At no time is the frontman to place anything inside the hole of the casing especially fingers.** If the drive bar does not line up properly then the bar is to be tapped in with a hammer. The drive bar will be inserted from the operator side and if required the casing can then be spun back to give the operator a clear view of the drive bar.

- The lead casing will then be rotated in to the ground and re-clamped at a low level and the drive bar removed. The head of the rig is then lifted and the slide operated to move the head out the way to achieve installation of the augers.

- The lead auger is then placed within the casing as above lead casing but lifted in with the specially adapted lifting bale. The bale is detached by removing the top pin and then the head of the rig is attached to the auger. **It is essential that the top pin is in position when augering commences for each auger in turn.**

- The lead auger is then rotated into the ground until the hex drive of the auger is just above the casing and the top pin is removed. At this stage a second auger is installed as before and connected on to the hex drive of the lead auger. The pin is then inserted to connect the lead and second auger. Once the pin has been driven in with a hammer the pin joint will be secured with a piece of tie wire.

- The augers are then connected to the head of the rig again and rotated into the ground. At low level the augers are stopped the cage is opened and the top pin is removed. The augers are then rotated down so that the hex drive is below the casing drive and the head is detached by joggling the rotation.

- Grease is then applied to the top of the casing thread by a tar brush each time to lubricate the next casing being threaded on.

- A second casing is then attached to the lead casing and the sub is connected as in stage 1 above for casing installation.

- The above sequence is then followed until the casings achieve seal into the underlying clay.

- On achieving seal, the augers will then only be inserted leaving the casings sealed in to the clay and clamped by the rig. Auger installation will then cease at the required design depth.

- The removal of the augers will require the cage to be open and this will require extra care on behalf of the rig operator.

- If the Frontman requires to work on the blind side of the rig, then the operator using a safe agreed method of communication will take their hands off of the levers and only re-engage the levers on instruction from the frontman. Ideally all work needs to take place where the operator can see the Frontman.

- The augers are raised by the head of the rig and the auger plate is placed in just under the joint of the auger. The weight of the augers is then transferred from the rig to the plate. The pin wire is then removed, and the pin hammered out. The auger is then lifted and detached from the lower auger until the hex joints are clear.

- The head of the rig will then be slid over and the auger taken down and rested on the side of the auger plate. At this stage the top pin is removed, and the auger is detached from the sub of the rig. The head is then lifted clear, and the auger will either be attached to the lifting bale and removed with the excavator or control dropped to the ground.

- If controlled dropping of the auger is to take place, then there needs to be sufficient room around the rig for the frontman to step away once the auger is dropped. At no time is the Frontman to stand in a crush zone or try to catch a falling auger.

- Each extracted auger will be removed from the immediate piling zone before the extraction of the next auger.

- The above sequence will be used until all augers are retrieved from the pile bore.

- The pile cage is then installed by the piling crew as per main RAMS and the pile is filled with either grout or concrete.

- The casings will then be ready for removal. The casing is connected to the sub of the rig as above and raised until the joint of the casing is just above the clamps.

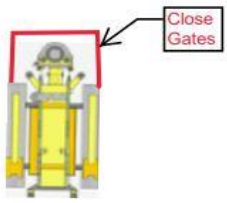
- The sequence of removal will then follow that of the augers above. If at any time the casing is overfilled with concrete the this will be cleared using a shovel to allow a full view of the drive bar hole. At no time is the Frontman to place his fingers in the drive bar hole or arms inside the casing to clear any spoil or overfilled concrete.

- If at any time the above sequence cannot be achieved, then all work is to cease and the GSS Piling Manager is to be contacted.

If the site restrictions dictate that the safety cage is to be removed, the crew will be briefed fully on the below procedure. The working zone for the rig is restricted for access to just GSS piling crew members and no other operatives are permitted to enter if the rig is working unless permission is sought from the drilling foreman.

2.4 GUARDING OF PILING RIG

Scenario 1
Open Site - Gates fully close



Scenario 1
Safety circuit 1

Full Gates

-Magnetic gate lock on Automatic

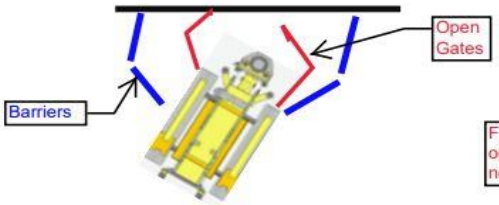
-Normal safety modes all working

-Operator can use inching button

Photo - Drilling Gates Closed - Circuit connected

Photo - Forced inching mode - limited movement on drilling controls when gates are open

Scenario 2
Restricted Site - Gates partially open



Scenario 2

Safety circuit 2

Partial/No Gates

-Magnetic gate switch isolated

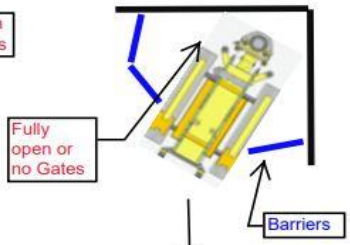
-Rig front barriered off

-Inching mode off while drilling with open gates

-Frontman arm safety system activated along with traffic lights system

Photo - Magnetic gate switch isolated

Scenario 3
Fully restricted Site - Gates fully open/off



Scenario 3

Photo - Inching mode off with gates open while drilling

Frontman able to stop rotary movement using the frontman arm system and then Operator will manually switch inching mode on

Red light - no access to rotary

Green light - access for frontman to rotary, inching switches on

3 Health, Safety & Environmental Considerations

3.1 Manual Handling:

A manual handling assessment is attached to this document.

3.2 COSHH

A list of materials below indicated which of materials are likely to be used for these works, COSHH assessments and material Safety Data Sheets for these will be kept on site.

- ☐ Asphalt
- ☐ Brick Cleaner
- ☐ DEB Pure Hand Wash
- ☐ DEB Swarfega Orange
- ☒ Dry Cement Powder
- ☐ Expanding Foam
- ☐ Formwork retarder - Aquatard
- ☒ Fuel Oil
- ☒ Grease (Turntable)
- ☒ Hydraulic Oil
- ☒ Mould Oil
- ☒ Readymix Concrete/Grout
- ☐ Resin - ADI Polyester
- ☐ Resin – Hilti HIT 500
- ☐ Sika Accelerator
- ☐ Silicone sealant
- ☐ Soft Wood Dust
- ☒ Survey Line
- ☐ Unleaded Petrol

3.3 Hand Arm Vibration

Use of vibrating equipment is to be minimised wherever possible by use of mechanical plant.

The plant and tools we use have been selected as being the best compromise between performance, vibration levels and cost to reduce the exposure of operatives to potentially harmful vibration.

Where hand operated vibrating plant is required the GSS Site Manager/Foreman will monitor and record using GSS HAV record sheet. Information regarding the equipment vibration levels will be held on site. Copies of records will be issued to the main contactors on a weekly/monthly basis, along with associated toolbox talks and additionally reiterated within on-going task briefings.

3.4 Noise

Initial noise monitoring is to be carried out and reviewed as the tasks being undertaken change throughout the job. Soundproofing on the Klemm 702 guarantees a very low level of 82 DBA at 2.0M meaning that the rig is ideally suited for the application of urban job sites. Full levels are shown below.

	2.0M	4.0M	6.0M
Klemm KR702 – Power Pack 	Idle: 74 Max Rev: 82	Idle: 68 Max Rev: 78	Idle: 67 Max Rev: 73

Action levels are:

- 80dB(A) is the Lower Action Value – hearing protection should be offered and additional methods to remove, reduce and prevent exposure should be assessed.
- 85dB(A) is the Upper Action Value – hearing protection zones set up, hearing protection to be worn at all times in these zones.
- 87dB(A) is the Exposure Limit Value (include SNR value of hearing protection). Daily exposure never to exceed a time weighted average of this value.

Noise assessments will be undertaken as required and revised as above. The plant and tools we use have been selected as being the best compromise between performance, noise, and cost to reduce the exposure of operatives to potentially harmful noise levels.

3.5 Dust and Atmosphere

Dust will be kept to a minimum by controlling all works that could create dust.
Dry cutting of concrete and masonry is prohibited; wet cutting will always be used.

No ventilation of the power packs will be required on this contract.

3.6 Spillages

Storage, handling of use of substances must not permit any chemicals to enter the ground or water courses or drainage.
Any person or item of plant causing or identifying a problem will be dealt with as soon as possible to reduce any impact and ensure that harm is limited, and inform the site management of any spills, leaks or incidents relating to spillages so that (if necessary) it can be reported to the Environment Agency (or SEPA)

FUEL: The fuel will be kept in a bunded tank on kept on a bund of at least 110%. refuelling will only be allowed in designated areas with spill kits available and firefighting equipment. Any spillages will be contained and appropriated disposed of. In the event of a spill:

- Stem the flow, divert away from drains, use suitable PPE (e.g. Gloves, safety goggles).
- Surround the spill with absorbent materials (spill kit to be stored in suitable, close to hand position).
- Segregate the absorbent materials used as "special waste" and store in a marked-up container (e.g. COSHH bin)
- If it is a major incident contact the Environment Agency 24hr hotline on 0800 807060, complete form 43.

Grout: Grout spillages will be collected, allowed to cure, and be disposed of as inert material. grout must not be washed into drains.

3.7 Permits

Permits Required: YES
Permit Type: Permit to dig by PC + Hot Works Permit issued daily by PC.
Permit to dig is to be in line with the FPS requirements, if not then GSS piling will ask for our permit to be used and signed off.

3.8 Training of Persons Involved

All personnel will be suitably trained for the tasks that they are to undertake. All operatives will be Health and Safety trained and CSCS card holders. All plant operators to have CPCS cards and the site supervisor will hold an SSSTS as a minimum.
Plant operators to hold current fit for work medical.
All other training certs will be issued on request.

3.9 PPE

(As per British and European standard)

- Hard Hat EN397
- Safety Footwear EN345
- Hi-vis Clothing EN ISO 20471
- Gloves EN420
- Eye Protection EN1661349

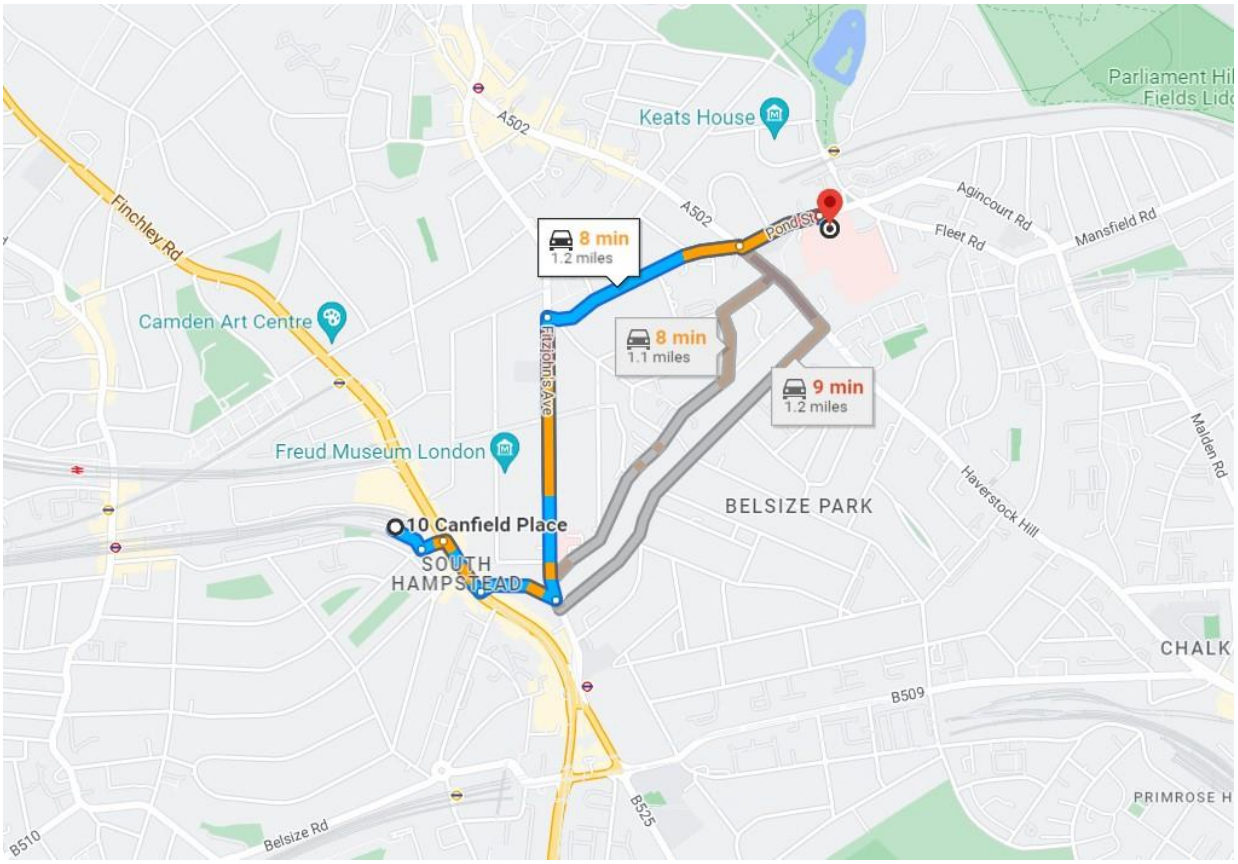
Additional task specific PPE to be used as per risk assessment.

- Handling cement FFP3 masks
- Ear plugs/ defenders 24-32 Db
- Gauntlets and wellington boots (steel toe cap) concrete pours
- Dual filter dust masks (Task Specific).

3.10 First Aid

First aid kit/facilities are to be provided by the Principal Contractor and introduced within the site induction (awareness and communicated).
The nearest hospital is Royal Free
1st aider for GSS on site TBC.

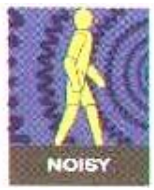
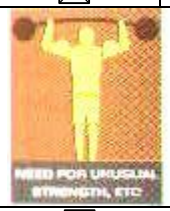
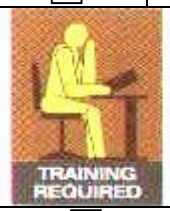
If 1st aid is required, then all incidents must be treated and recorded within the site accident book and a GSS Piling Construction Manager must be informed along with the main contractor.



3.11 Responsibility for & Review of Safe System of Work and Ensuring Compliance:

Bradley Olivo
Senior Safety Manager
Tel: 07917 841152

Manual Handling Operations Checklist (Mark boxes as appropriate, every activity must be marked)			
Company:	GSS Piling	**Project: Stonecutter Court**	**Activity:** Case & Auger Piling
Materials to be handled:	Reinforcement, 25kg bagged materials 25-10kg, Casings, augers.	**Hazardous contents:** N/A	**Location:** Existing Ground level adjacent to Network rail Asset.
Can manual handling be eliminated:	No but limited by use of mechanical aids where possible.		

TASK												
	☒	☒	☒	☐	☒	☒	☒	☒	☒	☒	☐	☐
LOAD									
	☒	☒	☐	☐	☒	☒	☒	☒	☐	☒		
ENVIRO N												
	☒	☐	☒	☐	☒	☒	☒	☒	☐	☐	☐	☒
PERSON						**Control measures (Mandatory Section to be completed)** Toolbox talks 'Manual Handling' before works commence and annual manual handling training.						
	☐	☒	☒	☒	☐							

Assessor Name:	P Burr	**Signature:**	P. Burr	**Date:**	12-07-2022

Noise Assessment Single Equipment

Project: 10-24 Canfield Place	**Activity:** Case & Auger Piling	**Sheet:** 1	**Completed By:** PB	**Date:** 12-07-2022
Project No: 22208	**People affected / at risk of being harmed:** (Include 3rd Parties) Operatives in area			

No	Activity	Tools in use	Pre Control Risk Rating High: >85dB Medium: 80-85dB Low: <80dB	Controls Required	Post Control Risk		
					High	Med	Low
1	**Piling**	Klemm 702	High	Ensure hearing protection in use. Site power Pack as far away as practical and enforce hearing zone around power pack.			**X**
2	**Concrete pumping**	Putzmeister 1006	High	Use of the remote for the pump, enforce hearing protection zone.		**X**	

Guidelines;
80dB(A) is the Lower Action Value – hearing protection should be offered and additional methods to remove, reduce and prevent exposure should be assessed.
85dB(A) is the Upper Action Value – hearing protection zones set up, hearing protection to be worn at all times in these zones.
87dB(A) is the Exposure Limit Value (include SNR value of hearing protection). Daily exposure not to exceed a time weighted average of this value.

4 RISK ASSESSMENT

Key to Risk Assessment

Risks are assessed by making a judgement about the severity and likelihood of an event occurring which constitutes the risk associated with the task. The following risk assessment has been carried out using the following descriptions for Severity and Likelihood.

Severity:

No Injury	1
Minor Injury	2
3-day Injury	3
Major Injury	4
Death	5

Likelihood:

Almost Never	1
Seldom	2
Possible	3
Probable	4
Frequently	5

Risk Assessment Matrix:

The product of the severity and likelihood equates to the risk as per the table below. Low, Medium and High risk are defined as:

Low	1-6
Medium	7-12
High	13-25

		Severity				
		5	**4**	**3**	**2**	**1**
Likelihood	**5**	25	20	15	10	5
	4	20	16	12	8	4
	3	15	12	9	6	3
	2	10	8	6	4	2
	1	5	4	3	2	1

Risk Assessment

Nature of work: Case & Auger Piling **Risk Assessment Number:** 1

Project: 10-24 Canfield Place, NW6 3BT **Project Number:** 22208

Assessed by: Paul Burr **Date:** 12-07-2022

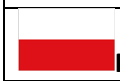
Activity	Hazard	Initial			Control Measure	Residual		
		S	L	R		S	L	R
Deliveries Taking delivery of materials, plant etc. Site supervisor to attend DABS briefing daily if required.	Injury due to moving vehicles	5	3	15	Ensure warning signs are in place where vehicles might be moving. Provide regular training (tool box talks) about the risks of moving vehicles. Vehicles to be fitted with reversing bleepers. Mobile phone policy. Hi-vis clothing.	5	2	10
	Falls from delivery vehicles	4	3	12	Operatives are not to go onto delivery vehicles unless there is a proper handrail in place, or by using fall arrest block which must be secured at sufficient height above them to be effect.	4	1	4
	Lorry mounted crane offloading - crushing	5	4	20	Competent operator using the lorry mounted crane. Banksman Tethers on lifted plant/material. Qualified slinger/signaller to sling loads. All lifting accessories to have valid in date thorough examination certificates All lifting equipment to have valid in date thorough examination certificates SWL of accessories and equipment not to be exceeded	5	2	10
Existing Services Excavation/Working in area where existing services may be present	Damage to Services Injury through explosion (gas) or electrocution (electricity)	5	4	20	Main Contractor to mark all services prior to works commencing Consult service plan prior to commencing works. Permit to dig system. CAT scan prior to excavation Scan prior to drilling holes in walls/floors	5	2	10
	Fire as a result of sparks	4	4	16	Hot Works procedures and permits system in use.Task fire extinguisher.	4	2	8
Control of Dust	Respiratory Problems	4	4	16	Suppress at source via dampening or use of extraction. RPE to be worn.	4	2	8
Control of Noise	Hearing Loss	4	4	16	Suppress at source via work method. Protection screens or use of ear defenders when above 80Db(a) Hearing action zones where required.	4	2	8

Activity	Hazard	Initial			Control Measure	Residual		
		S	L	R		S	L	R
Abrasive wheels , Breaking Works Cutting of Reinforcement, concrete etc. with rotating blade cutter Breaking brickwork	Injury through debris in eyes	3	4	12	Training to ensure cutting debris being thrown away from face. Goggles	3	3	9
	Injury through disintegration of wheel	4	4	16	Training Use of correct wheel for the tool in use: diameter, width and bore diameter. Ensure wheel in attached correctly and tightened with the appropriate tool.	4	1	4
	HAVS	4	5	20	Monitor usage and record. Shift patterns and rotations to minimise exposure. Daily usage not to exceed 400 HSE points. Limit use to action value where possible Training	4	2	8
Protecting persons not involved in our works Undertaking work close to the public areas, this includes the footpath and other site activities.	Persons entering the work area, causing injury etc.	4	3	12	Ensure site gates are kept shut when not in use to prevent unauthorised access. barriers and warning signs in place.	4	1	4
	Slips, trips & falls	3	5	15	Ensure good housekeeping of work site. Open bores to be protected and covered or backfilled. Stick to defined walkways.	3	2	6
Covid 19	Transfer of Covid 19 between operatives and family members. Serious illness or death.	5	4	20	Ensure measures are undertaken as above in section 1.5. Follow CLC guidelines and practice social distancing. Travel by private car and not public transport where possible.	5	3	15
Rig guarding Removal of rig guarding in the event piles are too close to existing structures.	Persons coming into contact with the turning auger	4	4	16	Crowd control barriers to be placed around the front of the rig to prevent persons coming into contact with the turning auger. Persons only allowed to access the front of the rig when the auger has stopped turning. Driller to step away from the controls when a person is required to access the front of the rig. Driller to inform front man that it is safe to access the front of the rig.	4	1	4
Rig movements	Crushing	4	4	16	Only trained banksman / Frontman to direct the rig operator when tracking. Other operatives to stay out of the way and in sight of the rig driver. Barriers to be erected around the work area to prevent others from entering.	4	1	4

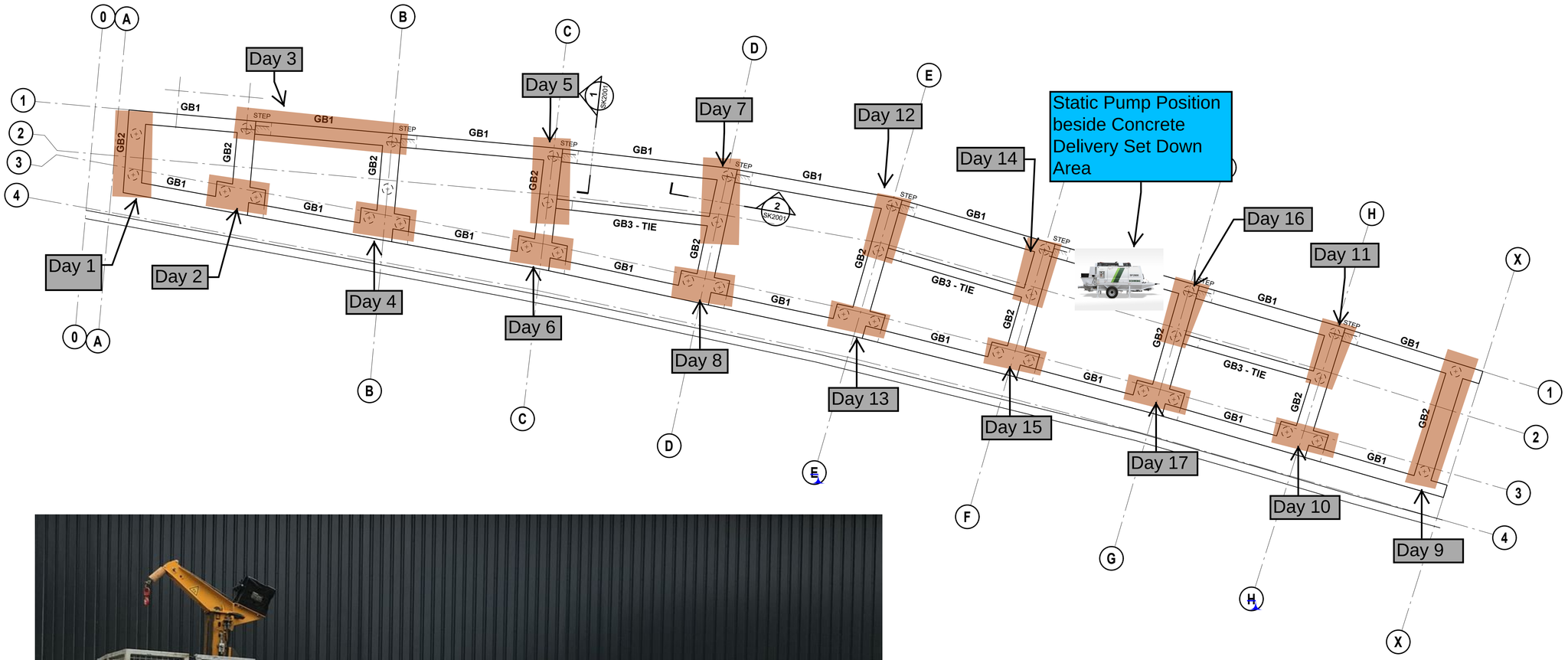
Case and Augering	Entrapment	4	4	16	Only frontman to be permitted in front of the rig. Safety cages to be always closed when possible. Crowd control barriers to be used if auger cages cannot be closed, Frontman and rig driver to have sighting of each other always. Under no circumstances is anyone permitted to enter the exclusion zone when the augers are rotating.	4	1	4
Lifting of Augers and Casings.	Crushing / back pain.	3	3	9	Only trained frontman to remove augers and casings. Casings and augers to be stored on level ground. Keep the area clear when removing casings or augers. Do not place hands or fingers into casing holes.	3	1	3
Cage insertion	Entrapment	3	3	9	Do not place hands inside the cage. Use trapping bar under the welded ring. Use additional persons to lift the cage into the bore.	3	1	3
Concrete works Pouring site mixed concrete	Concrete burns	4	4	16	Training to ensure awareness of concrete burns Ensure that welly boots, rubber gloves and safety glasses are worn for concreting. Be fully covered while grouting. Ensure clean water is available on site to immediately wash any concrete from skin	4	2	8
	HAVS	4	5	20	Monitor usage and record. Shift patterns and rotations to minimise exposure Daily usage not to exceed 300 HSE points Training	4	2	8
	Spillage of concrete other than in the pile	3	4	12	Washdown thoroughly after concreting using a silt sock to prevent entering the drains. Ensure that grout/concrete is poured in a controlled manner by the pump operator. Ensure pile is not over filled with excessive grout/concrete.	3	2	6

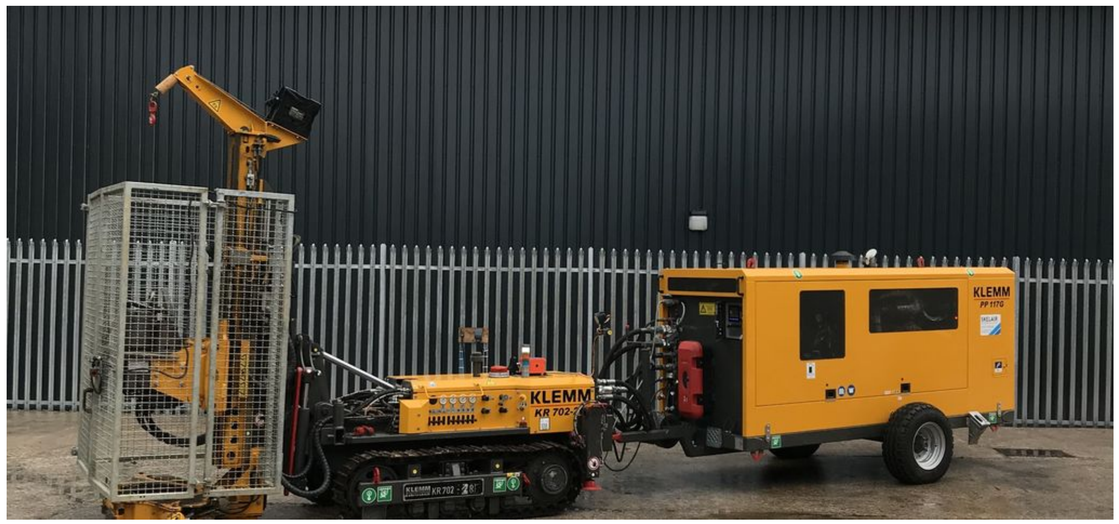
SEVERITY		**LIKELIHOOD**	**Review Date:** Every 6 weeks	**Assessor Signature:**
No Injury	1	Almost Never		Paul Burr/Bradley Olivo
Minor Injury	2	Seldom		
3-day Injury	3	Possible		
Major Injury	4	Probable		
Death	5	Frequently		

Project Location:	**10-24 Canfield Place, London, NW6 3BT**
Principal Contractor:	McCabe Builders
Method Statement:	PILING - 22208 Rev.00

 **Great Britain**	By signing below I confirm that I have a clear understanding of the briefing as above
 **Hungary**	Aláírásommal megerősítem, hogy a fenti tájékoztatást teljes mértékben megértettem.
 **Latvia**	Zemāk parakstoties, es apliecinu, ka skaidri saprotu iepriekš izklāstīto instruktāžu
 **Poland**	Składając poniżej swój podpis, potwierdzam całkowite zrozumienie powyższych wytycznych
 **Russia**	Ставя свою подпись ниже, я подтверждаю, что я четко понимаю инструкции, приведенные выше.
 **Albania**	Albania Duke firmosur më poshtë unë konfirmoj se i kuptoj mirë udhëzimet më sipër
 **Romania**	Prin semnarea prezentului document, confirm că am înțeles clar informarea de mai sus.
 **Bulgaria**	Поставяйки подписа си по-долу, потвърждавам, че разбирам точно горния инструктаж

Full Name	Date	Company Position	Signed





NOTES

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING)TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT:-ASK

CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

DRAWING TO BE PRINTED IN COLOUR FOR FULL CLARITY

SCHEDULE OF CONCRETE MEMBERS

GROUND BEAMS

REF.	SIZE	REF.	SIZE
GB1	550W x 500mm Dp. GR. BEAM	GB2	750W x 500mm Dp. GR. BEAM
GB3	400W x 500mm Dp. GR. BEAM	-	-

CONCRETE UPSTANDS

REF.	SIZE	REF.	SIZE
U250	250 Thk. R.C. UPSTAND	U375	375 Thk. R.C. UPSTAND

SCHEDULE OF STEEL MEMBERS

STEEL COLUMNS

REF.	TYPE, SIZE	COMMENT
SC1	203 UC 46	GRADE S355

STEEL BEAMS

REF.	TYPE, SIZE	COMMENT
SB1	305x165 UB 46	GRADE S355
SB2	305x165 UB 54	GRADE S355
SB3	SHS 90x5	GRADE S355
SB4	305x165 UB 40	GRADE S355
SB4A	305x165 UB 40	GRADE S355, WITH RSA 100x50x8, GRADE S275, WELDED TO THE WEB WITH 6mm STITCH WELD 100mm @ 300mm C/C.

VERTICAL BRACING

REF.	TYPE, SIZE	COMMENT
VB1	70 EA 7	GRADE S275

ISSUE	DATE	DESCRIPTION	DRN
P1	15.06.22	ISSUED FOR INFORMATION	SA

BMCE STAGE

PRELIMINARY

BARRETT MAHONY

Dublin Office: Sandwith House, 52-54 Lower Sandwith Street, Dublin 2, Ireland. Tel: (01) 677 3200 Fax: (01) 677 3164

London Office: 8 Mill Street, London SE1 2BA, United Kingdom. Tel: (0044) 20 3750 3530

Sofia Office: 22 Zlaten Rog Street, Lozenets, Sofia 1407, Bulgaria. Tel: (00359) 2 494 9772

Consulting Engineers, Civil , Structural , Project Management. E-mail: bmce@bmce.ie Web: www.bmce.ie

CLIENT

COWELL GROUP

PROJECT TITLE

CANFIELD PLACE

MODEL REFERENCE	BMCE PROJECT No.
-	22718

PROJECT DIRECTOR	PROJECT ENGINEER	SCALE	SHEET SIZE	SUITABILITY CODE
VB	OC	SCALE 1:100@A1, 1:200@A3	A1	-

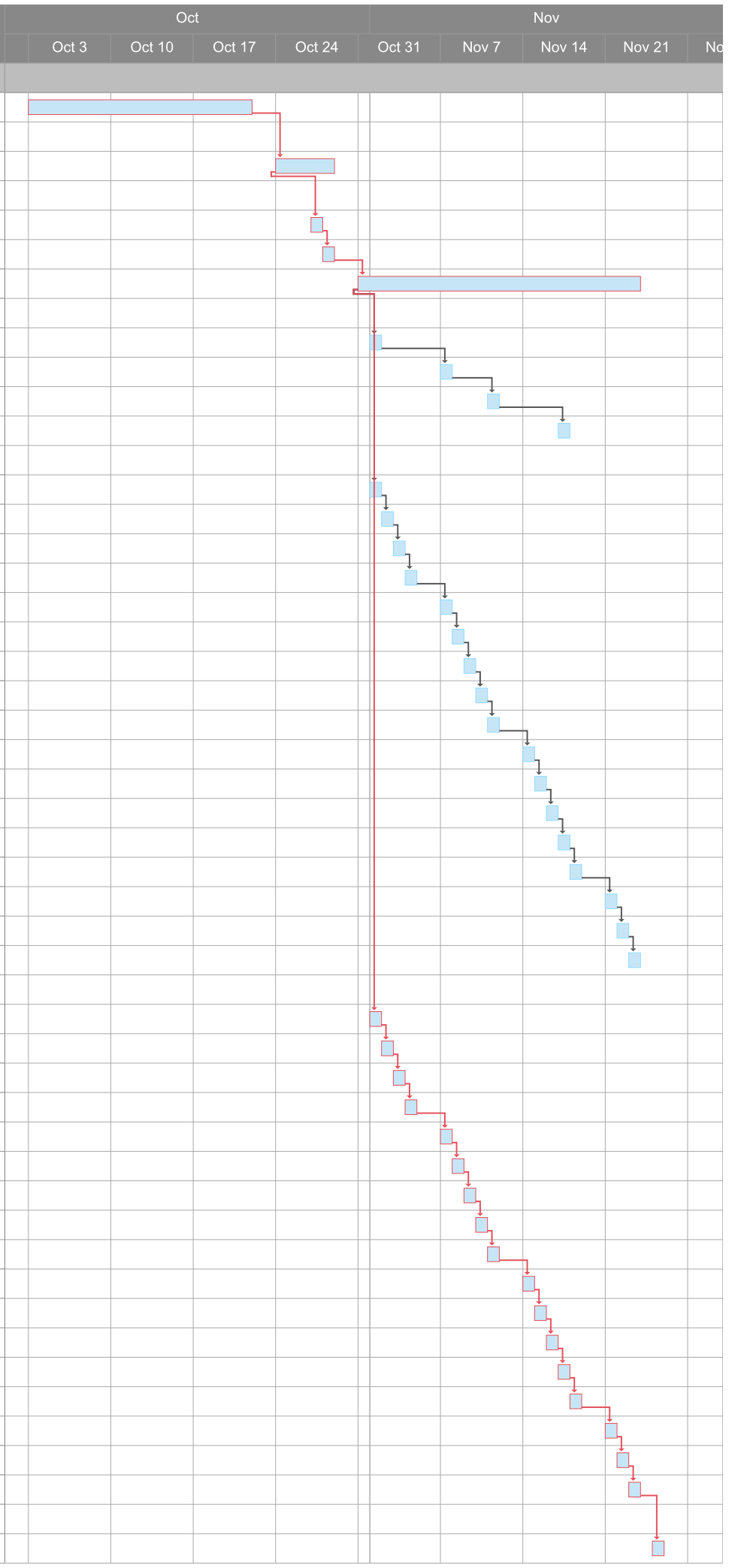
DRAWING TITLE

PRELIMINARY STRUCTURAL SCHEME FOUNDATION PLAN

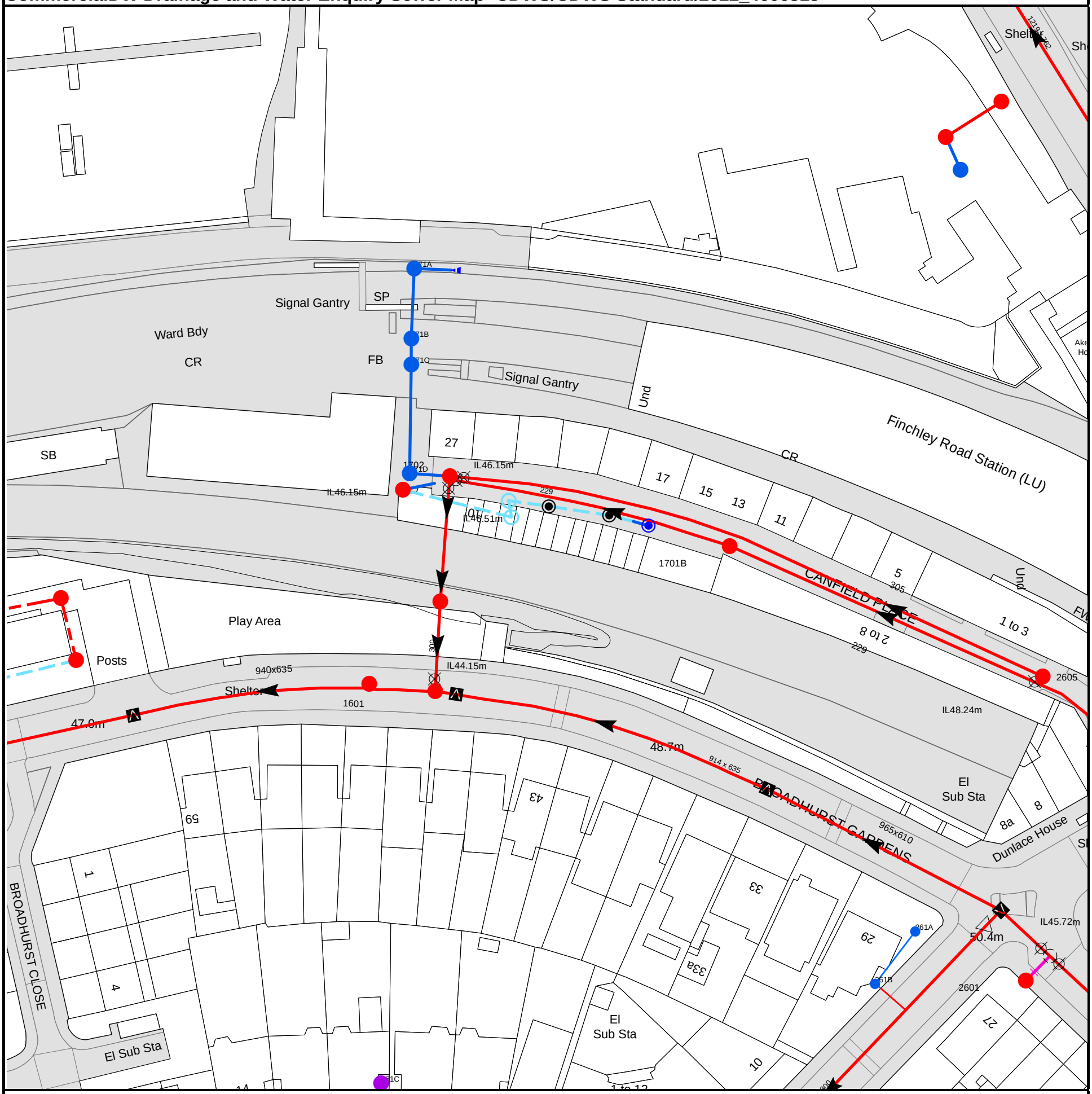
DRAWING REFERENCE	REV
SK-2000	P1

Piling Works Canfield Place

	Task Name	Duration	Start	Finish
1				
2	Demolition of Existing Garages	15d	03/10/22	21/10/22
3				
4	Preperation & Installation of a Piling Matt	5d	24/10/22	28/10/22
5				
6	Delivery of Piling Rig	1d	27/10/22	27/10/22
7	Delivery of Static Pump and Equipment	1d	28/10/22	28/10/22
8	Commencement of Piling Works to Lower Part of Site	18d	31/10/22	23/11/22
9				
10	Delivery of Reinforcement Cages	1d	01/11/22	01/11/22
11	Delivery of Reinforcement Cages	1d	07/11/22	07/11/22
12	Delivery of Reinforcement Cages	1d	11/11/22	11/11/22
13	Delivery of Reinforcement Cages	1d	17/11/22	17/11/22
14				
15	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	01/11/22	01/11/22
16	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	02/11/22	02/11/22
17	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	03/11/22	03/11/22
18	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	04/11/22	04/11/22
19	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	07/11/22	07/11/22
20	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	08/11/22	08/11/22
21	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	09/11/22	09/11/22
22	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	10/11/22	10/11/22
23	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	11/11/22	11/11/22
24	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	14/11/22	14/11/22
25	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	15/11/22	15/11/22
26	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	16/11/22	16/11/22
27	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	17/11/22	17/11/22
28	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	18/11/22	18/11/22
29	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	21/11/22	21/11/22
30	Disposal of Spoil off Site from Excavated Piles 2 per day	1d	22/11/22	22/11/22
31	Disposal of Spoil off Site from Excavated Piles 3 per day	1d	23/11/22	23/11/22
32				
33	Concrete Delivery 1 Nr 8m3 Loads	1d	01/11/22	01/11/22
34	Concrete Delivery 1 Nr 8m3 Loads	1d	02/11/22	02/11/22
35	Concrete Delivery 1 Nr 8m3 Loads	1d	03/11/22	03/11/22
36	Concrete Delivery 1 Nr 8m3 Loads	1d	04/11/22	04/11/22
37	Concrete Delivery 1 Nr 8m3 Loads	1d	07/11/22	07/11/22
38	Concrete Delivery 1 Nr 8m3 Loads	1d	08/11/22	08/11/22
39	Concrete Delivery 1 Nr 8m3 Loads	1d	09/11/22	09/11/22
40	Concrete Delivery 1 Nr 8m3 Loads	1d	10/11/22	10/11/22
41	Concrete Delivery 1 Nr 8m3 Loads	1d	11/11/22	11/11/22
42	Concrete Delivery 1 Nr 8m3 Loads	1d	14/11/22	14/11/22
43	Concrete Delivery 1 Nr 8m3 Loads	1d	15/11/22	15/11/22
44	Concrete Delivery 1 Nr 8m3 Loads	1d	16/11/22	16/11/22
45	Concrete Delivery 1 Nr 8m3 Loads	1d	17/11/22	17/11/22
46	Concrete Delivery 1 Nr 8m3 Loads	1d	18/11/22	18/11/22
47	Concrete Delivery 1 Nr 8m3 Loads	1d	21/11/22	21/11/22
48	Concrete Delivery 1 Nr 8m3 Loads	1d	22/11/22	22/11/22
49	Concrete Delivery 1.5 Nr 8m3 Loads	1d	23/11/22	23/11/22
50				
51	Removal of Piling Rig & Pump, etc off Site	1d	25/11/22	25/11/22

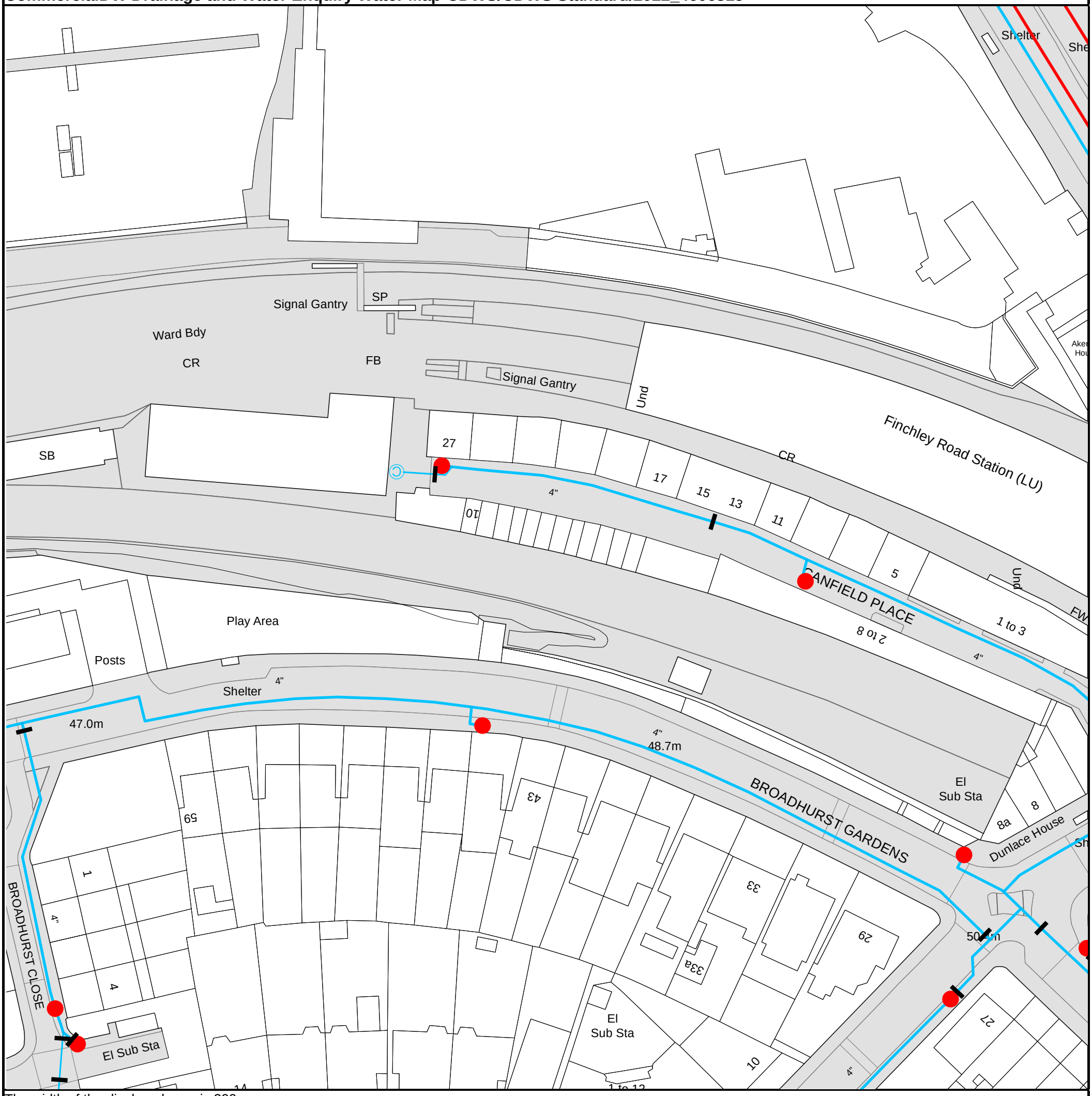


CommercialDW Drainage and Water Enquiry Sewer Map- CDWS/CDWS Standard/2022_4606815



The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

CommercialDW Drainage and Water Enquiry Water Map-CDWS/CDWS Standard/2022_4606815



The width of the displayed area is 200m

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.