## Project Details:

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| **Reference** | **Details** | **Contact** |
| **Client name** | Todd Bermann |  |
| **Site Address** | 3 Hampstead Hill Gardens NW3 2PH London |
| **SO/SC number** | SO/SC2890 |  |
| **Project Manager** | Ashley Richards | 07850649683 |
| **Project Surveyor** | Mark Down | 07850649682 |
| **First Aider on site** | Jamie Smith | 07841865362 |
| **Start date** | 06/07/2020 |  |
| **Type of Install** | Full  |  |
| **Type of cellar** | Original |  |
| **Depth of cellar** | 3.00m |  |

## Introduction:

This document explains the method of working to be employed by Spiral Cellars Ltd when carrying out work on site.

## Pre-install visit:

1. Prior to Spiral Cellars install team arriving on site, the Project Manager will have a pre-install meeting with the Client/Main contractor. The purpose of this meeting is to check that preparation work (in relation to the Spiral Cellar) has been undertaken in accordance with our datasheets & guidance and also to go through site specifics and health and safety issues.

## Arrival to site:

1. Upon arrival, our team will park their vehicle in the allocated space, as agreed in advance with the client.
2. The Project Manager will run through the specifics of the install and any additional, site specific hazards/ risks identified will be discussed and documented *(including confirmation of the materials storage area).*
3. The team/Project Manager will confirm with the client the exact location of the Spiral Cellar and orientation of the steps, vent pipes and trap door.
4. The team will put on their PPE (Personal Protective Equipment) and will begin work.

## The Excavation:

1. The circumference of the hole will be marked out with marker paint.
2. The floorboards will be lifted in the relevant area. The joists will be cut through and supported to reveal the ground below. We will mark out the cellar circumference on the soil or concrete below the suspended timber floor.
3. The safety barriers will then be erected to prevent any falls from height.
4. Once the team have done the above, the excavation of the sub soil can begin.
5. The team will hand excavate 300mm at a time, transporting the spoil by wheelbarrow to the skip.
6. When the top of the existing footing of the house is reached, the steel shuttering rings will be fixed together. *The rings are for shoring the sides of the cellar wall to protect the teams while they work in the hole.*
7. The steel shuttering will also hold back spoil to the sides and underside of any existing footing, (if the cellar walls are close to the existing footings).
8. The shuttering rings are formed by 5 sections forming a ring of 2.5m diameter (for White cellar) x 750mm in depth. The steel sections are held together by using heavy zip ties or nut/bolt/washer; and will remain in the ground.
9. Every 700mm a new shuttering section will be dropped down into position. *This will then alleviate any spoil collapsing away from the existing footing as the team excavate.*
10. This process is repeated to the required cellar depth.
11. The shuttering rings will be supported inside by steel or timber props, to alleviate /resist the soil thrust to other side of the steel shuttering.
12. If groundwater is present it may be necessary to pump out the water during the excavation; this will continue until completion of the dig if necessary. *The Project Manager will decide whether the excavation target can be reached safely without risk to the Health and Safety of the team. If the situation dictates, it may be necessary for a shallower cellar to be installed.*
13. Once the target depth has been achieved the gap between the bottom of the steel shuttering rings and soil base can be filled using expansion foam around the bottom of the shuttering.
14. When the foam has set a slurry mix of concrete will be poured into the gap between the back of the steel shuttering rings and the soil; the slurry will be well compacted within the 20-50mm gap and filled to the top of the finished ground level.

## Delivery, Storage & Movement of Materials:

1. Bulk bag materials and cellar modules will be delivered in the morning of day 3 of the full installation.
2. All bulk bag materials will be delivered to the site by Travis Perkins (or other Building Merchant); the cellar modules will be delivered to site by our preferred freight company.
3. The deliveries will drive to the designated materials storage area to offload, as advised by the client/main contractor.
4. The materials will require an area large enough to accommodate 7 pallets of cellar modules and up to 15 bulk bags (0.6m3).
5. When all the materials are off-loaded the team will move them to a designated mixing area, as agreed with client/main contractor.
6. Movement of materials around site will be by a non-mechanical rough terrain pallet truck. (Push & pull with all terrain wheels.)
7. An 110v Belle mixer will be used to mix all the materials on site. Mixed concrete will be transported to the install area using a wheel barrow and then distributed as required.
8. Cellar modules will be transported to the install area by wheel barrow, 1 module at a time; or carried by a team member depending on the distance.
9. The path between the mixing area and the install area will be kept clear to enable safe movement of materials.
10. Scaffold boards or a ramp will also be used in the path area if the team have to bridge any holes or ditches. Should there be any holes or ditches more than 1 meter in length, boards will be “doubled up”.
11. Surplus materials will be removed from site and either disposed of into the skip, removed from site by the team for re-use or collected by the Building Merchant (unused full loads only).
12. Pallets will be collected from site on the last day of the install.

## The install:

1. Upon completion of the hole, sharp sand blinding of 50mm will be poured into the base of the hole.
2. Geo-textile lining sheets will be inserted inside the steel framework.
3. A heavy-duty Butyl tanking liner will be fitted inside the geo-textile liner and both will be clamped/supported at the top of the hole by using scaffolding planks to keep the bag taut.
4. A further geo-textile liner will be fitted inside the bag for added protection.
5. A 200 – 250mm base slab of concrete with polymer fibres (3.5kg/m2 to obtain 1.5N/mm2) will be poured into the bag and levelled.
6. The cellar modules are then lowered into the bag via supports and one team member will be at the bottom, setting out and fitting the modules and step modules in brick bond fashion.
7. The modules are interlocking. As the cellar construction rises above waist height a series of scaffolding boards are used for support and standing.
8. The top ring is fitted just below finished floor level and one half of the ring is covered by three soffit boards (two flat and one angled).
9. Between the back of the modules and the shuttering is a gap of 150mm. This gap will be filled with concrete mixed with polymer fibres.
10. This forms the outer concrete ring (3.5kg/m2 to obtain 1.5N/mm2) to the cellar. This process is completed in two stages.
	1. The outer concrete ring is formed at the half way stage in building of the cellar and the second stage is when the top rings are in place.
	2. The next stage is to reinstate the suspended timber floor. The floor will be fixed and supported using joist hangers and bolts where necessary.
11. Team will then install the concealed timber floor.

## Housekeeping & Waste Management:

1. The team will keep the working area and any material storage areas, clean and organised at all times.
2. The waste generated will be disposed of into open skips sourced by our licensed waste carrier & broker (“Select-A-Skip UK Ltd”).
	* Licence CBDU64707
	* Expiry 30/10/2021
3. Waste generated by our work is classified as “non-hazardous”, European Waste Catalogue code (EWC 17-09-04 mixed construction and demolition wastes).
4. All waste will be contained at all times to avoid causing any pollution.
5. Skips will be uplifted by the afternoon of the last install day.
6. All Duty of Care documentation (Waste Transfer Notes) will be given to our team by the waste carrier, and returned to our Head Office for retention for two years.

## Minimum PPE Requirements:

* Safety boots EN‐345 Standard with impact resistance of 200 Joule.
* Safety gloves EN‐388
* Ear defenders EN‐352
* FFP3 dust mask EN‐149
* Safety hat EN‐397
* High Visibility vest EN‐471
* Other PPE items may be required, depending on other hazards/contractor works in the vicinity

## Plant and equipment:

* Safety barrier
* 110v Belle Cement Mixer
* Ladder
* Breakers
* Hand & power tools
* Wheelbarrow
* Ropes

## Human resources required:

* Minimum of 3 persons

## Related documentation and assessments:

* Employee H&S Handbook
* Risk Assessment GRA\_001 Manual Handling
* Risk Assessment GRA\_002 Working At Height
* Risk Assessment GRA\_010 Use of Lifting Equipment
* Task Risk Assessment TRA\_004 Installation of Cellar Modules
* Toolbox talk – Lifting do’s and don’ts / Safe Lifting Techniques
* Toolbox talk ‐ Using Hand Pallet Trucks

## Foreseeable hazards:

* Manual handling – strains & sprains
* Working at Height – Falls from height
* Personal injury – trapping/ crushing limbs/extremities, cuts, bruises
* Vibration and noise
* Dust
* Poor housekeeping
* Other contactors/works on site
* Incorrect equipment for task

## Safety precautions / Control measures:

* Staff will erect the safety barrier around the excavation prior to work commencing
* Staff will undertake a manual handling & dynamic risk assessment prior to work commencing
* Staff have received training in manual handling
* Staff have received HAV and Noise Awareness Training and only use low vibration tools
* Staff have received COSHH training (re control & management of dust)
* Staff have received on the job training under supervision to undertake this task
* Keep working area clear and tools away from cellar entrance
* Check you have the correct equipment prior to commencing
* Inspect the equipment prior to commencing; all electrical items are 110v and have been PAT tested
* PPE appropriate to the task and on‐site hazards must be worn
* Ensure you have adequate lighting & ventilation
* Remain vigilant and take care during access and egress to the excavation
* Do NOT undertake this activity alone

## Monitoring systems / further information / observations:

Project Manager will complete Active Monitoring form during one of the site visits.

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| Method statement prepared by: Antonina Gziut  |
| Signed: *Antonina Gziut* | Date: 29/05/2020  |

The undersigned employees confirm that they have read and understood this method statement and the associated documents & assessments as detailed under section 12.

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| **Employee Name** | **Signature** | **Date** |
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