

Building close to a tree Root Protection Area RPA



This method requires less concrete, less spoil removal, and remarkably reduced vehicle and plant movement. Eventually reducing the carbon footprint in your working areas.



Delivering the project more than 75% faster than all the building methods used before



Lower costs



Does not require piling mats (in 96% of cases)



No excavations for the ground beams.



No pre-cast floor.



No managing costs for the above



Our method of working has many factors that increase the safety on building site and has approval by warranty providers such: NHBC, LABC and Premiere Guarantee.

CONSTRUCTION
MUZZY LTD

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Our foundation system allows construction of residential or commercial structures close to, or within a tree Root Protection Area (RPA). This provides the opportunity to increase the yield of your site by allowing an increase in the footprint of your structure and/ or adding additional plots to your development.

Our special method of work is approved by Arboriculturists and prevents damage to tree roots in a number of ways. In preparation for piling we use air spades and hand augering techniques to identify any roots that may conflict with the proposed pile locations. If roots are present our in-house design team review and adjust the design to accommodate them.

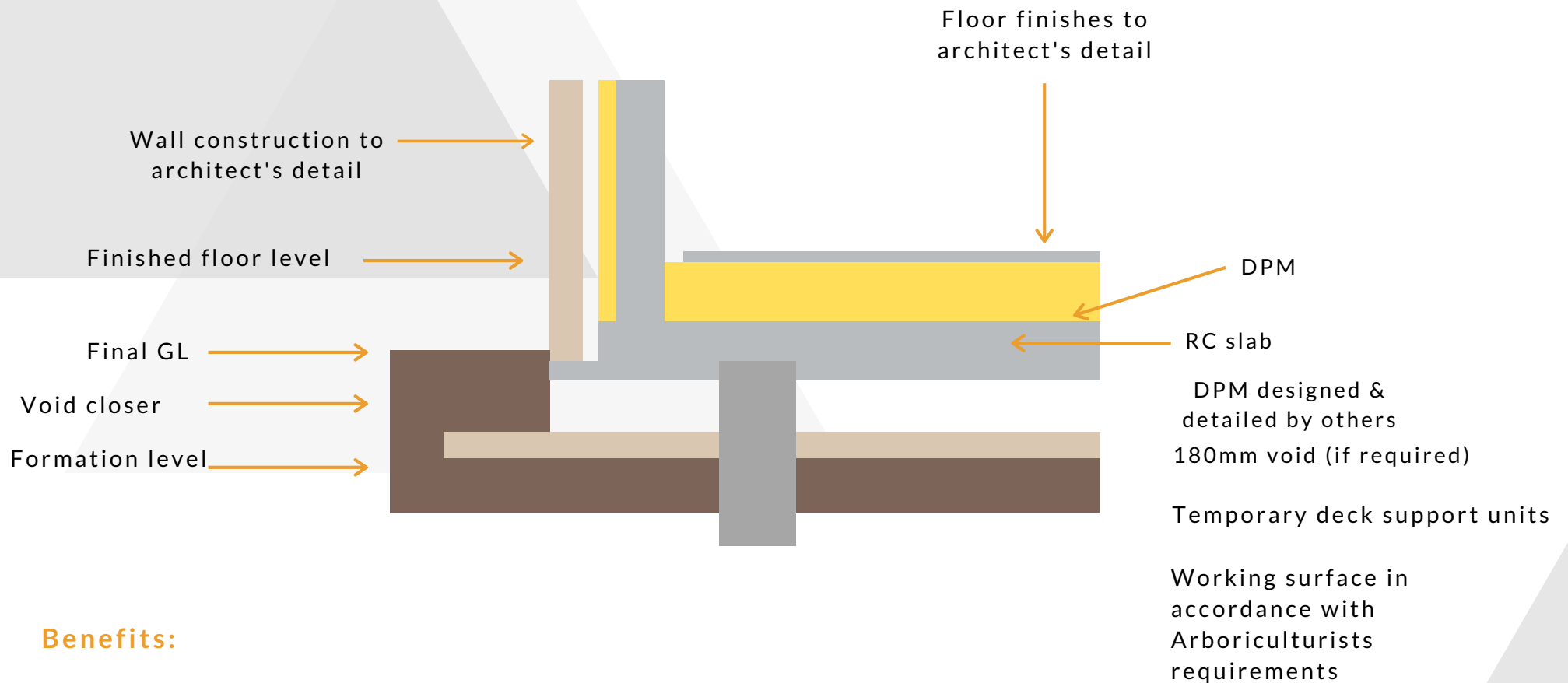
We use a bespoke working surface to support our custom lightweight piling rigs, minimising excavation that could cause damage to tree roots. Each pile position is also sleeved, and further precautions are taken when pouring the slab to prevent concrete leaching into the protected ground, that could cause harm to roots.

Our construction methods can support a range of piling techniques, depending on ground conditions. We also offer alternative piling options, such as stone columns or reduced diameter piles. All our methods are BBA certified and warranty provider approved: NHBC, Premier Guarantee and LABC. All engineered solutions are fully underwritten.



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Typical detail



Benefits:

- 1 -Allows construction within RPA
- 2- Significant reduction in excavation.
- 3- Significant reduction in under build.
- 4 -Bespoke working surface in place of piling mat.
- 5 -Clear void to mitigate heave risk (if required).
- 6 -No venting required.

Construction process



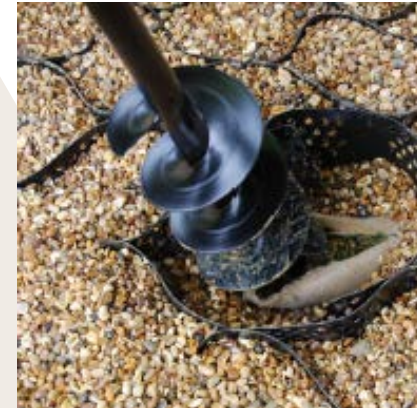
Setting Out

We start by setting out the pile locations. This takes place either directly on to the prepared ground or over a breathable geotextile membrane.



Bespoke Working Surface

Once setting out is complete a bespoke working surface is laid. We use three types of working surface: Cellweb (pictured), a concrete working surface (pictured) or granular mat. The surface type is dictated by the site requirements in conjunction with the Arboriculturist.



Hand augering

Hand augering is undertaken at all pile positions within the RPA. If roots greater than 10mm diameter are found, our in-house design team re-analyse the slab. A new pile position is proposed and re-augered. Once all positions are confirmed to be root free, piling can commence.



Drainage & Services

After the piles are trimmed to cut off level the drainage and services are installed. This can be done by us or the client, project dependant.



Piling

The piles are driven using our custom made light weight rigs. which can be supported by the bespoke working surface. This prevents the need for deep excavation for a piling mat, which would cause root damage. Each pile is then sleeved to prevent concrete leaching into the RPA.



Deck Support Units

Our patented temporary Deck Support Units (DSU) are laid out to create the void, upon which the raft will be built.

About us:

Construction Muzzy Ltd (CML) has been in operation since 2005 and offers a range of construction services, tailor made to fit the organisation we are working with. Groundworks and Civil engineering is our focus. In addition, we have now gone that step further and are able to offer a complete bespoke package allowing CML to take the building to water tightness. We employ trades and labour that can fulfil 70% of the needed requirement when constructing the super structure and building envelope. The remaining 30% is subcontracted though our supply chain. To give our clients, the very best value no further fee is applied to any subcontracted labour.



Piling



Exavations



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