

TREE CONSTRAINTS PLAN - LEGEND	
Tree Location & Number	● T1 & G1
Canopy Spread	—
Trees not detailed on plans provided	⊘

British Standard 5837:2012 Tree Categories Key	
●	BS 5837:2012 Category B Tree Root Protection Area
○	BS 5837:2012 Category C Tree Root Protection Area

LEGEND	
Tree Location & Number	● T1 & G1
Trees not detailed on plans provided	⊘
Trees for Removal	⊘
Canopy Spread	—
Root Protection Area	○
Original proposal	—
Revised proposal	—
Revised natural pool location	—
Extent of RPA coverage from proposed	■
Sunpath Indicator	☀
Shade cast by trees	■

Arboricultural Impact Assessment in relation to existing trees and the proposed pavilion & natural pool

Figure 1: Revised scheme size and location

The overall size of the revised scheme is 29% smaller than the original submitted scheme. The location of the revised scheme has been pulled forward to locate it outside the canopies of trees and minimise impact upon Root Protection Areas (RPA). The orientation of the scheme has been assessed to allow for maximum amount of direct sunlight to be afforded to areas of optimal usage (see sunlight assessment below & Figures 4 & 5). The natural pool has also been altered in shape to afford it optimum sunlight.

Figure 2: Tree Root Protection Area (RPA) coverage by revised scheme

British Standard BS5837:12 paragraphs 7.4.2.3 & 7.5.3 (7.4.2.3) states that 'New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA, (7.5.3) where a slab for a minor structure (e.g. shed base) is to be formed within the RPA, it should bear on existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground'. The pavilion is the only structure that covers areas of the trees' RPA.

Tree 1 within G2 = 7.5% RPA cover

Tree 2 within G2 = 12% RPA cover

Tree T6 = 4.9% cover

The proposed structure within any single tree's RPA is minimal and unlikely to compromise its health and stability. It must also be noted that the pavilion will be constructed upon screw piles and will, in principle, be floating, thus limiting any effect upon the soil below (see foundation design).

Figure 3: Foundation design

The pool is not located within any tree's rooting area and adequate space exists to form shallow ecological areas and deep areas for swimming.

The pavilion should be constructed upon screw piles or a similar foundation design. These foundations will enable the structure to be raised above ground level to allow natural gaseous exchange to occur within the soil. This will limit any detrimental effect upon tree roots and their surrounding soil. Thus, the design of the proposed foundation is reasonable and a positive approach to sustainable construction design, compared with traditional construction methods.

Figures 4 & 5: Sunlight assessment

Reference: BR209v6 Site layout planning for daylight and sunlight

Para. 3.1.15 In general a dwelling, or non-domestic building that has a particular requirement for sunlight, will appear reasonably sunlit provided:

- at least one main window wall faces within 90° of due south and
- a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted

Figure 4: Location measured from decking level, central to pavilion

5 hrs of sunlight for March from 8.30 am through to 1.30 pm

6.5 hrs of sunlight for June from 7.30 am through to 2 pm

Figure 5: Location measured from water surface level, central to natural pool

3 hrs of sunlight for March from 9.30 am through to 12.30 pm

9.5 hrs of sunlight for June from 6 am through to 6.30 am and 7.30 am through to 4.30 pm

Note: Measurements have been assessed for a clear sunny day. No adjustments have been made for different tree species and their varying opaque foliage cover.

Tree loss

To accommodate the construction of the pavilion and natural pool, a large, poor quality Lawson Cypress tree T2, a small Liquidamber tree T3 and three poor quality fruit trees will require removal. To mitigate this loss, it is recommended that four Scots or Maritime Pines be planted in suitable locations, where they can grow into maturity.

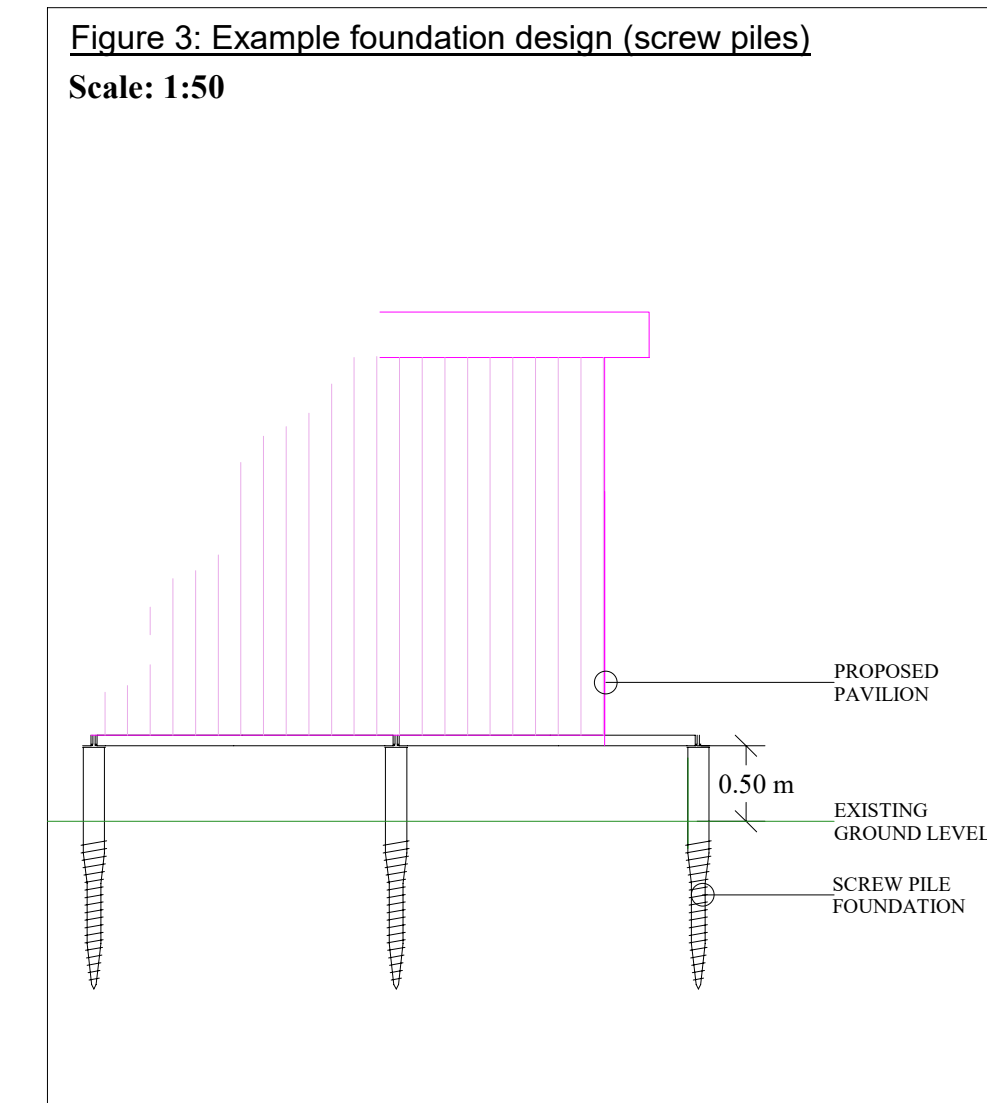
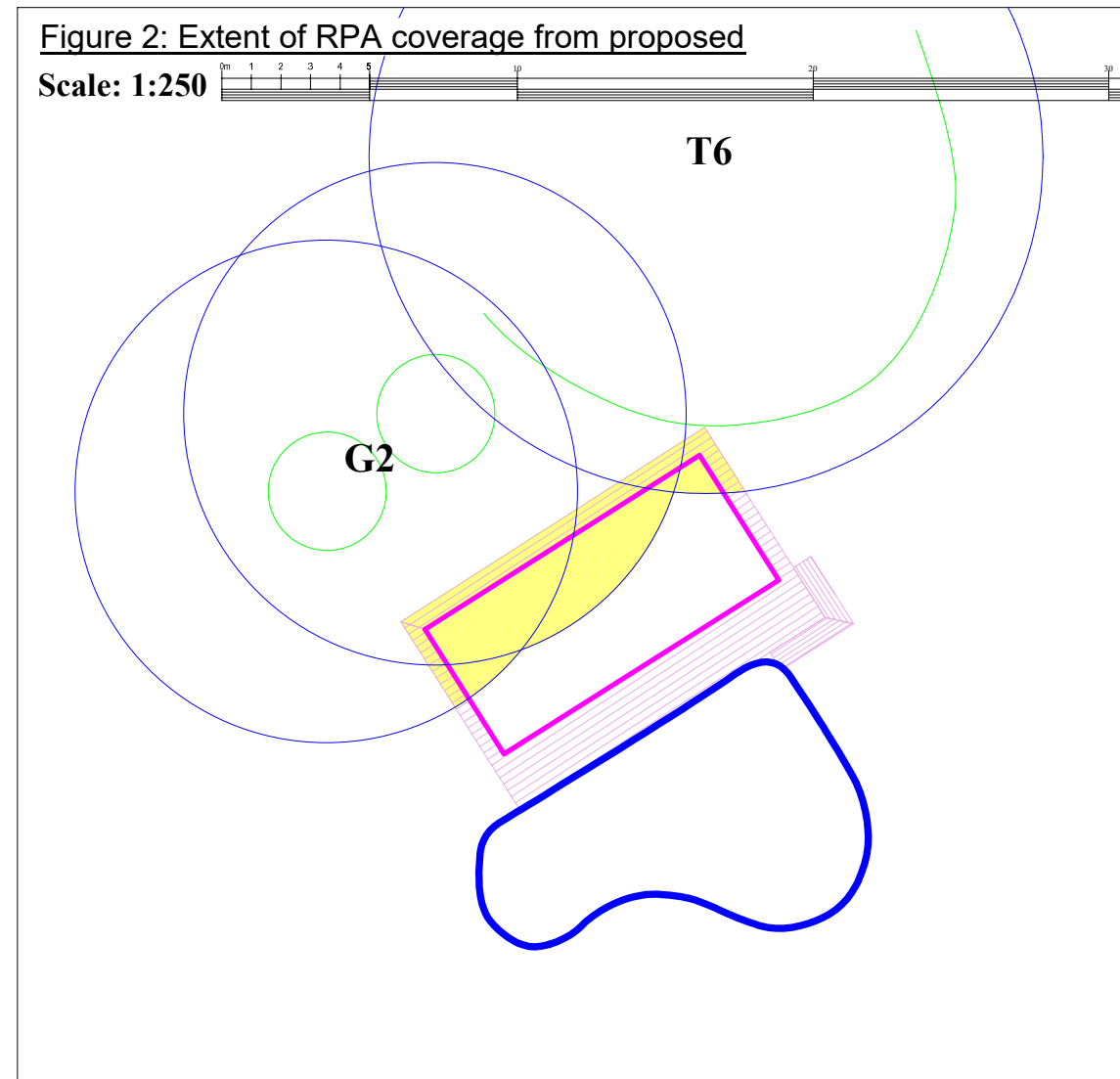
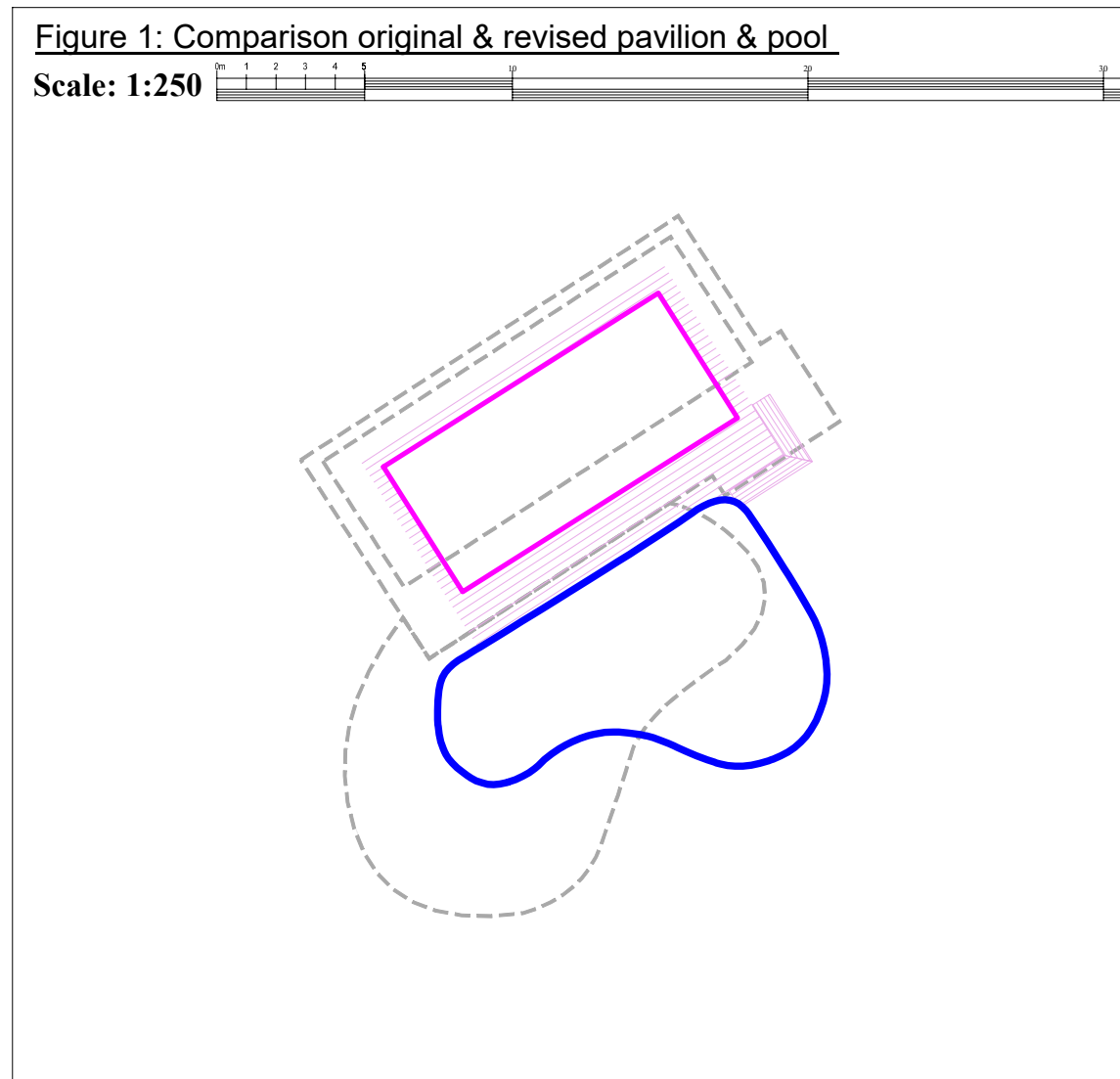
Recommendations

It is recommended that a person, with relevant experience, must design the details relating to the pavilion foundations and natural pool construction. These must include accurate locations of installation, including cross-sections, detailing levels of existing / proposed finished levels and construction method statements for each specific operation, which will be required prior to or at the pre-commencement meeting. Written approval of the design, in relation to trees, should be acquired from the developer's acting Arboricultural Consultant or the LPA Arboricultural Officer.

Conclusion

The changes to the revised scheme are positive and the proximity of trees to the proposed pavilion and natural pool, should not be classified as an indirect constraint.

The desktop studies and suggested construction methods conclude that, with careful design and construction management, limited to no detrimental effects should occur to existing retained trees, the surrounding landscape and local character.



Site Address:
32 Bury Road
Poole
Dorset, BH13 7DG

Client:
Mr & Mrs Mellor

Document Titles:
Tree Constraints Plan
Proposed pavilion & pool location plan
Comparison original & revised
Extent of RPA coverage
Example foundation design
Sunlight assessment (pavilion)
Sunlight assessment (natural pool)

Rev. 00 **Paper Size and Scale:** A1 - A4 Plan
Date: 25/11/2022 **Project Ref:** GH2206
Drawing Ref: GH2206.1c

IMPORTANT NOTICE
This plan is based on the plans and/or site layout plans provided. All measurements must be checked with these plans and appropriate documents. All dimensions to be checked on site prior to commencement of work. Differences between drawings, specifications or structural engineers' details are to be referred immediately to Gwydion's Tree Consultancy. Work should only be undertaken from local authority approved drawings. For further information see associated report GH2206.1c.

THIS PLAN SHOULD BE VIEWED IN COLOUR

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