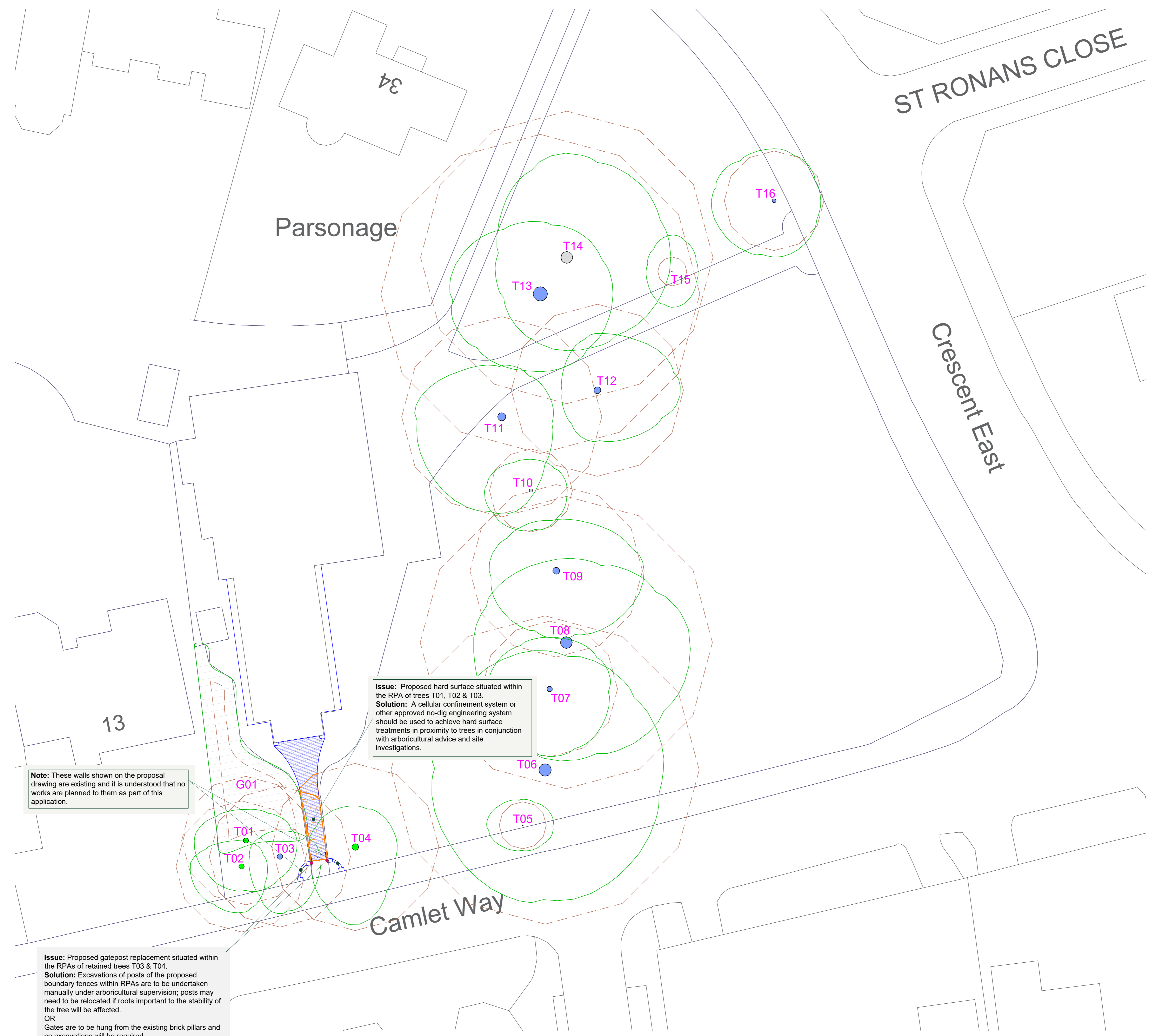


Indicative only



Issue: Proposed hard surface situated within the RPA of trees T01, T02 & T03.
Solution: A cellular confinement system or other approved no-dig engineering system should be used to achieve hard surface treatments in proximity to trees in conjunction with arboricultural advice and site investigations.

Note: These walls shown on the proposal drawing are existing and it is understood that no works are planned to them as part of this application.

Issue: Proposed gatepost replacement situated within the RPAs of retained trees T03 & T04.
Solution: Excavations of posts of the proposed boundary fences within RPAs are to be undertaken manually under arboricultural supervision; posts may need to be relocated if roots important to the stability of the tree will be affected.
OR
Gates are to be hung from the existing brick pillars and no excavations will be required.

Arboricultural Impacts

Impacts	Nos. of trees
Trees to be removed	0
Overhead lines to be removed (Partial removal of ground)	0/0
Trees with proposed retention into RPA	3
Overhead lines with proposed retention into RPA	0
Trees that will require pruning	0
Overhead lines that will require pruning	1
Trees to be transplanted	0
Overhead lines to be transplanted	0

No.	Species	Proposed structure	Incursion
G01	A Group	Hard surface	Overhead
T01	Corsican Pine	Hard surface	RPA
T03	Corsican Pine	Hard surface and gatepost	RPA
T04	Corsican Pine	Hard surface and gatepost	RPA

Arboricultural Impacts - RPAs (Area)			
No.	Species	RPA (m ²)	Incursion (m)
T01	Corsican Pine	114.5	0.3
T03	Corsican Pine	138.3	10.4
T04	Corsican Pine	164.1	12.8

Tree Work Schedule

No.	Species	Works	Category
G01	A Group	Prune. Reduce Eastern crown back by up to 10% clear proposed hard surface	C1

All tree work is to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.
All arboriculture is to be undertaken in accordance with the site plan as shown.
Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

'No Dig' Surfacing

Trees can be affected by construction within the RPAs either through the direct damage caused by the removal of roots, compaction of the rooting environment or secondary damage such as poisoning through leaks and spills (oil, fuels, etc.) or through de-liming (road salt, etc.).

Proposed hard surfacing within the RPAs of retained trees is to be designed so that it can be situated above the existing soil level and to minimise any adverse impact upon the tree RPAs, as the use of traditional foundations can result in excessive root loss through direct removal of roots during excavation and by compaction of the soil beneath the excavation, as such the 'traditional' type of foundation should be avoided.

When designing hard surfacing that is to be situated within RPAs, the design team need to pay particular attention to the proposed usage (pedestrian, domestic traffic, delivery vans, emergency vehicles, HGVs etc.), the existing and proposed levels of hard surfacing and finished floor levels, edging types and details, proximity to tree trunks and surface rooting, contamination capture, SUDs, etc.

Possible sub-bases (foundations systems) for hard surfacing situated within the RPAs of retained trees could include:

- A proprietary system such as a multi-dimensional confinement system (Colwell TDF or similar);
- Engineered solution such as a road deck, bridge, etc.

An engineered solution is likely require a level of excavation for site specific investigations to locate roots to aid in foundation design so that a suitable foundation can be designed to avoid roots and for the installation of the structure.

AD: The use of a multi-dimensional confinement systems and/or an engineered solution will affect the finished level of the hard surfacing by raising the levels and needs to be taken into consideration when designing foundations and setting the finished floor levels of adjacent buildings.

Utility apparatus

Underground utility apparatus
Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the route and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside of RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts, all inspection chambers should be sited outside of the RPAs.

Where underground apparatus is to pass within the RPAs, detailed plans showing the proposed route should be drawn up in conjunction with the project arboriculturist. In such cases trenchless insertion methods should be used with entry and retrieval pits being located outside of the RPAs. If this option is not feasible and providing roots can be retained, and protected excavations should be undertaken using hand held tools (air-spade, forks, shovels) or a combination of trenching and manual excavation (broken trench).

Any design and installation should be undertaken in accordance with the National Joint Utilities Guidelines (NJUG).

Above-ground utility apparatus
Above-ground apparatus including CCTV cameras and lighting) should be sited to avoid the need for detrimental tree pruning, as such the current and future crown size of the tree should be assessed. Tree branches can be pruned back with care to provide space, though it is not appropriate for repetitive and significant tree work to be an initial design solution unless this is a suitable management outcome for the tree. Any pruning should be undertaken in accordance with BS3998:2010.



Project: St Paul's Church, Hadley Wood, EN4 0EN

Client: St Paul's Church, Hadley Wood, Trust

Drawing: Arboricultural Impact Assessment

Based on: 1021 NLA AA XX DR A 00024

Drawing No: Arbtech AIA 01

Date: Nov 2023 Scale: 1:150 @ A0 Drawn: CMW

Key:

Tree Nos.	T01	Tree	Trunk
RPA	Category 'A' trees	Category 'B' trees	
Category 'C' trees	Category 'D' trees	Existing Site	
Proposed Site	Incursion - Hard Surfacing	Incursion - Fences	

