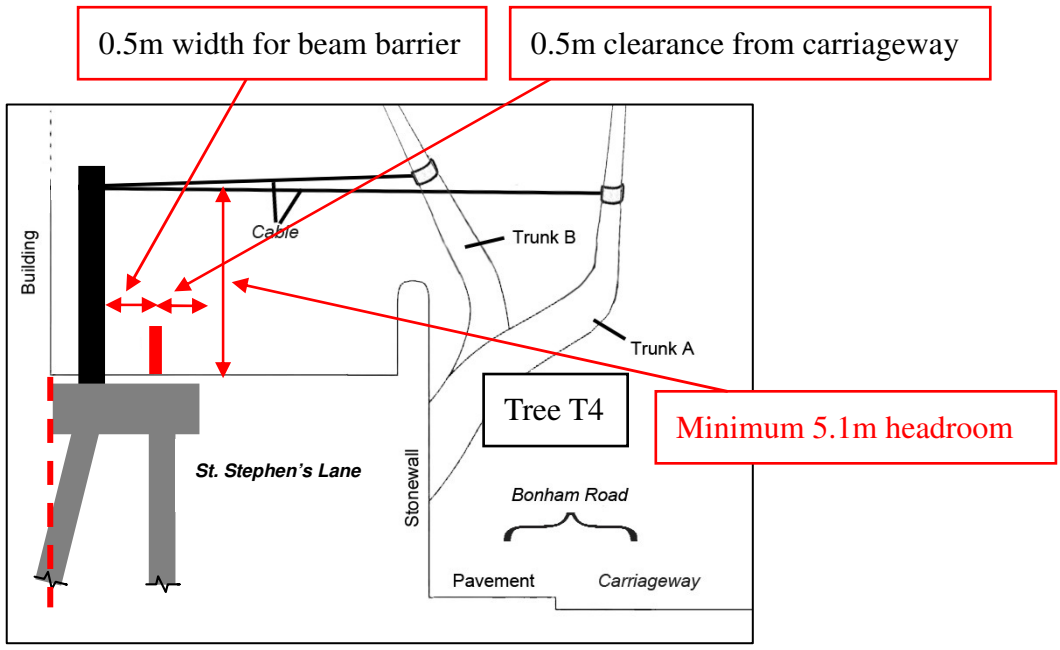
Further Engineering Assessment
In response to suggestion made by Expert Panel on Tree Management (EPTM)
For Stonewall Tree No. T4 on Slope no. 11SW-A/R577
Bonham Road, Hong Kong

1. Suggestion 1: Cables anchored on vertical structural members in front of shops at the St. Stephen's Lane



Sketch 1.1

1.1 Suggestion 1 is considered infeasible for the following reasons:

(i) St. Stephen's Lane is a one-lane two-way carriageway of about 4.5m width, being shared use with pedestrians. The existing road width is not up to current standard due to site constraints. The road width at the location of Tree T4 and T5 are 4.25m and 4.50m respectively. As the absolute minimum carriageway width requirement for a single track access road serving as emergency access [1] is 3.5m and the horizontal clearance requirements for carriageway to building/structure/obstruction[2] is 0.5m on each side, the existing road width is already below or at the minimum standard. It is not viable to install any structures at St. Stephen's Lane due to the road width constraint. (Photo 1.1)

(ii) To avoid transferring extra loading to the crest of the stonewall, the foundation of the steel posts for supporting the tree would be in the form of mini-piles. To resist the lateral force, the raking piles would encroach into the building lot boundary, hitting the building

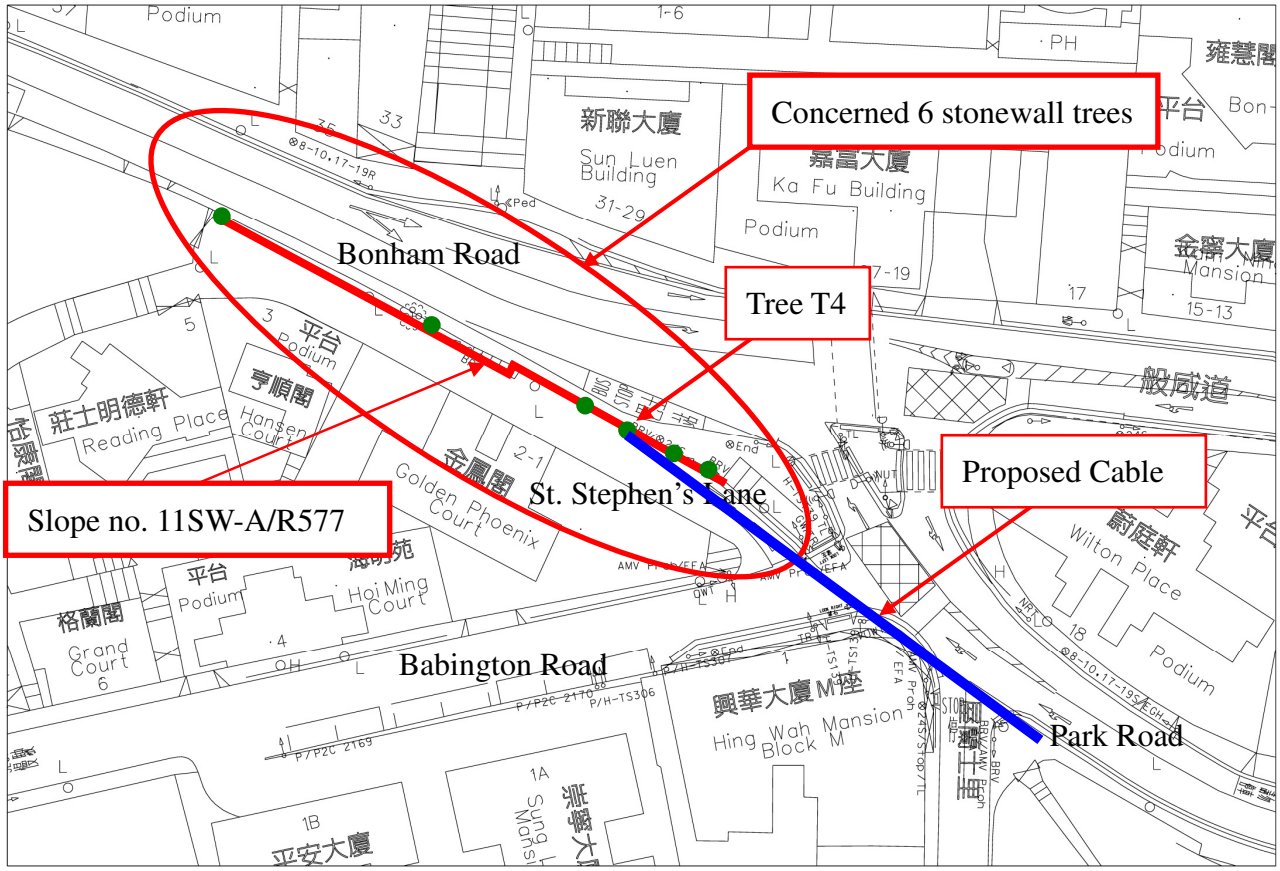
[1] Transport Planning and Design Manual Volume 2 Chapter 3 Paragraph 3.11.7.1
[2] Transport Planning and Design Manual Volume 2 Chapter 3 Paragraph 3.5.2.1

foundation. The scheme is therefore considered infeasible. Moreover, the tree roots growing under the St. Stephen's Lane behind the masonry wall will be damaged and the masonry wall structures will also be adversely affected due to the piling works.

(iii) In addition, according to the utility records, there are at least two numbers of underground electricity cables located at the St. Stephen's Lane. Underground utility diversion will result in closure of the whole lane for a long period. Together with the supporting frame construction works, St. Stephen Lane will have to be closed for a prolonged period which is unacceptable as the lane serves as emergency vehicular access to adjacent buildings.

(iv) The proposed steel posts will be obstructed by the advertising boxes or structures attached in the wall of the building (Golden Phoenix Court). Besides, the steel posts will be installed close to the shop fronts and would be objected by the affected shops.

2. Suggestion 2: Cables anchored on vertical structural members away from the concerned locations



Sketch 2.1

2.1 Suggestion 2 is considered infeasible for the following reasons:

(i) Instead of anchoring the cables on posts erected at St. Stephen's Lane, it is also suggested to anchor the cables on posts away from St. Stephen's Lane. Due to site constraints, the steel posts are to be erected away from the concerned locations as shown in the sketch 2.1. However, with such arrangement, the cable direction will be nearly perpendicular to the direction to which the tree would fall in case it fails. It therefore makes the system extremely ineffective and impractical.

(ii) The cable will be over 50m long and suspends over carriageways and footpaths. This, together with the flexibility of Tree T4, would make it difficult to control the profile of the cable which could sag substantially over Babington Road. It will also create significant adverse visual impacts.