## **Supplementary Note**

## Maintenance Efforts on Stonewall Trees on Slope no. 11SW-A/R577 Bonham Road, Hong Kong

- 1. Highways Department (HyD) is responsible for the maintenance of vegetation growing on registered slopes (including stonewalls) belong to HyD. There were 6 stonewall trees (namely T1, T2, T3, T4, T5 and T6) growing on slope no. 11SW-A/R577 between Bonham Road and Stephen's Lane. Signs of risk of root detachment and trunk cavity at Trees T4 and T5 were observed. In view of the potential risks to public, HyD had commissioned a study to identify the factors affecting the health and stability of the stonewall trees, formulate suitable maintenance measures for their sustainable growth and advise on mitigation measures to minimize the risk of tree failure (the Study).
- 2. The Study was completed in 2013. The stability conditions of T1, T2, T3 and T6 were rated as at a low risk level, while T4 and T5 were rated as with an alarming risk. Four mitigation measures for reduction of the risk level of T4 and T5 were suggested. A copy of the study report entitled *Study on Stonewall Trees: Maintenance Approach for the Stonewall Trees on Slope no. 11SW-A/R577, Bonham Road* is enclosed for reference.
- 3. However, those mitigation measures suggested in the Study, together with three other alternative mitigation measures conceived by HyD, were all considered not feasible mainly due to the various actual site constraints (e.g. congested and narrow carriageway and footpath, heavy traffic, existence of major underground utilities, etc).
- 4. On 24 April 2013, HyD, Tree Management Office (TMO) together with member of Expert Panel on Tree Management (EPTM) attended a joint site inspection to the stonewall trees. The findings of the Study and the findings of the feasibility assessment on the suggested mitigation measures were discussed. Two more mitigation measures were further suggested by EPTM during the site inspection. Following that, HyD further considered the suggestions but they were also found not feasible. For details on the feasibility assessments of the suggested mitigation measures, please refer to Assessment Report on Feasibility of Tree Support Systems proposed in Study on Stonewall Trees on Slope no. 11SW-A/R577, Bonham Road, Hong Kong.
- 5. In the absence of feasible mitigation measures to support T4 and T5 so as to address their alarming risks to public safety, a substantial pruning operation to the tree T4 (about 60%) and the tree T5 (about 25%) had been carried out on 17 May 2013 (Photos of the pruning operation are attached for reference). Subsequently, pruning of T1, T2, T3 and T6 (about 5-10%) had also been conducted in June 2013.





Photos of the pruning operation of T4 and T5 on 17 May 2013

- 6. After that, regular inspection and maintenance including removal of dead and damaged branches had been conducted to the six stonewall trees thereafter. Despite the efforts, the OVT T2 suddenly collapsed on 22 July 2015 without any fore-warning signs of distress. Alarmed by the cracks identified at the parapet wall behind the adjacent tree T3 during the detailed inspection carried out immediately after the collapse incident, the tree was removed on the same day. In addition, pruning to the remaining 4 stonewall trees (about 10-20%) were carried out on 22 July 2015 in order to reduce the risk of tree failure and frequent inspections were also conducted out thereafter so as to closely monitor their stability conditions.
- 7. Despite all these efforts to maintain the trees, new signs of instability suddenly became noticeable on 5 August 2015 leading to the difficult and painful decision of removing all the remaining four stonewall trees at Bonham Road. The detailed account of the emergency felling of the trees has been included in the *Report on Emergency Felling of Stonewall Trees on Slope No. 11SW-A/R577 at Bonham Road/St Stephen's Lane on 7 August 2015* which has already uploaded to HyD website.

