Re-issued under new categorization in August 2009 as Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers

ADV-5

# BUILDINGS ORDINANCE OFFICE PRACTICE NOTE FOR AUTHORIZED PERSONS 153 AND REGISTERED STRUCTURAL ENGINEERS

#### Tropical Hardwood Timber

Concern is mounting that unless action is taken soon, the world's tropical rainforests will be destroyed. The finger has been pointed at Hong Kong as a major user of timber from the rainforests.

2. It is claimed that Hong Kong is one of the top ten importers of tropical timber and most of that timber is used by the construction industry. To make things worse it is further claimed that a large proportion of this timber is used so wastefully that after minimal use it is discarded as construction waste and ends up in landfill sites.

3. Clearly Hong Kong has a large part to play in saving the world's rainforests. However, this does mean that we must be prepared to accept changes to many of the traditional methods of construction that we are used to in Hong Kong.

4. Government is taking a lead with these changes and is encouraging contractors to seek alternatives to hardwood.

5. The Buildings Ordinance Office is looking at its requirements with a view to changing procedures and requirements which directly, or indirectly encourage the use of hardwood timber. An exercise is underway to make the necessary amendments to legislation and Practice Notes in this respect. However, whilst this is proceeding you are encouraged to actively seek methods to reduce the amount of tropical hardwood timber used in your building projects.

## <u>Hoardings</u>

6. A large quantity of tropical timber is consumed for use as hoardings and you are therefore encouraged to consider using other materials for this purpose. Steel is an obvious alternative, and although possibly more expensive initially, it can be reused many times. The Architectural Services Department and the Housing Department have already started to require hoardings to be constructed of steel on their sites. You are encouraged to follow their example.

# Covered Walkways

7. Please consider whether it is necessary to provide a covered walkway, because it is not an essential precautionary measure on every site, particularly when buildings are set back from the site boundary.

### Temporary Formwork

8. Formwork is by far the largest single consumer of tropical timber on construction sites and therefore an obvious area where substantial savings can be made. There are many alternatives to the traditional temporary formwork construction. Before commencing your next building project using traditional reinforced concrete construction, why not consider other alternatives such as :

(a) profiled steel sheeting as a permanent formwork to support the wet concrete and as a reinforcement in the hardened concrete;

- (b) precast concrete units rather than placing concrete insitu;
- (c) structural steel rather than reinforced concrete for the building framework;
- (d) steel formwork instead of timber formwork; and
- (e) replace timber props with proprietary steel props to support formwork.

9. Many other alternatives are available which you may also wish to investigate.

## Internal Finishes

10. Tropical hardwood is also widely used for internal finishes and again alternatives are available. For example non load bearing built-in wall panels are often framed in hardwood timber, whereas there are many non timber framed proprietary wall panel systems available on the market.

11. Similarly there are also many alternatives to hardwood timber for doors, door frames, skirtings and architraves, especially as often these fittings are painted anyway.

#### Reuse of Timber

12. Apart from reducing the use of hardwood timber there is also a need to reduce as much as possible the wastage of any hardwood timber which is used on site. To achieve this, contract specifications could be written so that all hardwood timber waste is separated and reused wherever possible, rather than being dumped with other site rubbish.

#### Renewable Sources

13. Where no alternative to the use of hardwood timber can be found, the contract specification could be written to require hardwood timber to be obtained from renewable sources.

#### Long Term Solutions

14. These moves are intended to engender a wider awareness of the problem and to achieve some significant reduction in use of hardwood timber. However, long term changes in the methods of construction of buildings will need to be brought about, and in this respect BOO will now be consulting widely with the building industry, before finalizing how these changes should be made.

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