

27 November 1992

Works Branch Technical Circular No. 32/92

The Use of Tropical Hardwood on Construction Sites

Introduction

The purpose of this Circular is to reduce the amount of hardwood timber used on construction sites.

Background

2. Traditional methods of construction have favoured the use of hardwood which is imported from tropical rainforest areas and to a lesser extent from temperate zones. Timber importers are importing these hardwoods because they have convenient sources of supply and a ready market. Concern is growing over the use of this hardwood and in particular tropical hardwood because it is not produced from sustainable sources. There are alternative materials and although these alternatives are not necessarily readily available, and in the short term they may be more expensive, they must be considered.

3. Also of great concern is the amount of timber being used for construction that is going to waste. This can be reduced if other materials are used.

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Policy Statement

4. **As a first step towards elimination of hardwood for temporary works, hardwood for site hoardings, falsework and the shoring of trenches and pits shall be specified as not to be used on all contracts for which the first call for tenders is gazetted (or equivalent) as of 1 March 1993.**

5. Contractors must propose alternatives to hardwoods in their tenders or be directed to use specified acceptable alternatives.

6. The various uses of hardwood on construction sites are listed in Appendix A together with some suggestions for alternatives.

7. This policy will be kept under review to consider broadening restrictions in the use of hardwoods generally.

( H B Phillipson )  
Deputy Secretary (Works

Policy)

**Current Hardwood Uses**

1. Hardwood is being used for the following purposes :-
  - (a) Site Hoardings - in both the framing and the panelling.
  - (b) Formwork - defined as the mould against which concrete is cast and which gives the shape and finish to the concrete surface and which may be permanent or temporary.
  - (c) Falsework - defined as a temporary structure used to support formwork and a permanent structure until the permanent structure is self-supporting.
  - (d) Trench support - defined as the shoring, strutting and propping used to support temporary openings below surface ground level.
  - (e) Primary fix - for example as framework for non load bearing walls.
  - (f) Secondary fix - for example as doors, door frames, architraves, skirtings, dado rails, cornices and trims.
  - (g) Fitted furniture - for example, as framing, worktops, and clashing strips.
  - (h) Building maintenance - to replace existing, for example at refurbishment, wooden block and strip floors.
2. All of these areas of construction work can be carried out using alternatives to hardwood.

**Site Hoardings**

3. Site hoardings have traditionally been built of hardwood. Some alternatives to hardwood are under consideration by Arch S D. These alternatives include metal frames and metal sheet coverings, softwood framing and softwood veneered plywood and composite boards. These or other alternatives or combinations will be used on all new contracts after 1 March 1993.

**Formwork/Falsework and Trench Support**

4. Temporary formwork/falsework is a major consumer of hardwood.
5. There are alternative materials for formwork :-
  - (a) plain or profiled steel sheeting as formwork to support in-situ concrete
  - (b) precast concrete

## **Appendix A**

- (c) structural steel sections
  - (d) softwood based plywood/medium density fibreboard
6. There are alternatives to falsework and trench support :-
- (a) softwood
  - (b) metal props
  - (c) propriety steel systems.
7. Each alternative should be considered during the design stage and where benefits can be gained in using one over another this is to be encouraged. The requirements for the use of materials other than hardwood for temporary formwork/falsework and trench support should be stated in the contract.

### **Primary and Secondary Fix and Fitted Furniture**

8. The use of hardwood for primary, secondary fix and fitted furniture should be carefully considered at the design stage, and alternatives should be explored.
9. The question that needs to be addressed is whether or not hardwood should be used to execute a piece of work. It is arguable that any piece of unseen carpentry or joinery work should not be in hardwood and that only exposed items of carpentry or joinery work should be considered for a hardwood finish.
10. Designers are encouraged to pay more attention to their detailing and where the use of hardwood is unnecessary because it can be replaced by an alternative finish which meets the design criteria, then the alternative should be given preference.

### **Building Maintenance**

11. It is a fact of life that if hardwood is used in the original construction it will be replaced at maintenance by similar when worn out. The designer should recognize this fact.
12. It is equally important that perpetuation of the use of hardwood to replace hardwood should be reconsidered by all involved in the maintenance of buildings and refurbishment work, and where its incorporation in the works is unnecessary an alternative material should be considered as the replacement.

### **Conclusion**

13. With the proliferation of building materials available more thought is required at the pre-tender stage to consider alternatives to hardwood. Further action on the reduction in the use of hardwood on construction sites is being investigated and reductions in the use of hardwood will be extended to other areas of construction.