

# CARDIFF COUNCIL

## CODE OF GUIDANCE

### LADDERS

Every year many persons are injured, some fatally, whilst using ladders. Falls and fatal accidents have also involved step ladders. More than half of the accidents occur because ladders are not securely placed and fixed, and of these many happen when the work is of 30 minutes' duration or less. Other causes of accidents include climbing with loads, over-reaching or over-balancing, indicating that ladders are used when other equipment could have been more suitable. Some accidents are caused by grease, oil or some other slippery substance, transferred to ladder rungs on the soles of the user's boots.

This Code of Guidance gives basic safety information for users of the equipment and supervisory staff. All ladders provided must comply with the Provision of Use of Work Equipment Regulations, 1998 and be constructed to a relevant standard for work purposes. The specific legal requirement for the use of ladders are found in The Working at Height Regulations 2005.

The Code of Guidance addresses the following:

- 1.0 A Safe System of Work
- 2.0 Working on Roofs

#### **1.0 A Safe System of Work**

It must be ensured that a ladder is used for work at height only if a Risk Assessment under Regulation 3 of the Management of Health and Safety at Work Regulations has demonstrated that the use of a more suitable work equipment is not justified because of the low risk and –

- (a) the short duration of use; or
- (b) existing features on site which cannot be altered

Consideration should be given to the provision of some other form of support or work staging, e.g. a lightweight prefabricated scaffold which is inherently much safer than a ladder. In addition a working platform can often ensure the job is done more quickly and efficiently.

Where ladders are used either as a place of work or as a means of access to a place of work, the following are the main points to remember:-

#### **Do Not Erect a Ladder -**

- i) on sloping ground
- ii) on top of movable objects
- iii) in a high wind
- iv) in front of doors that may be opened
- v) against a slippery or unstable surface
- vi) at a shallow angle or to use horizontally as a plank or bridge
- vii) leaning to one side

- viii) at too steep an angle
- ix) against PVC or asbestos gutters (use of a stand off bracket is advisable)
- x) in the case of long heavy ladders unless sufficient help is available

### **Do Not -**

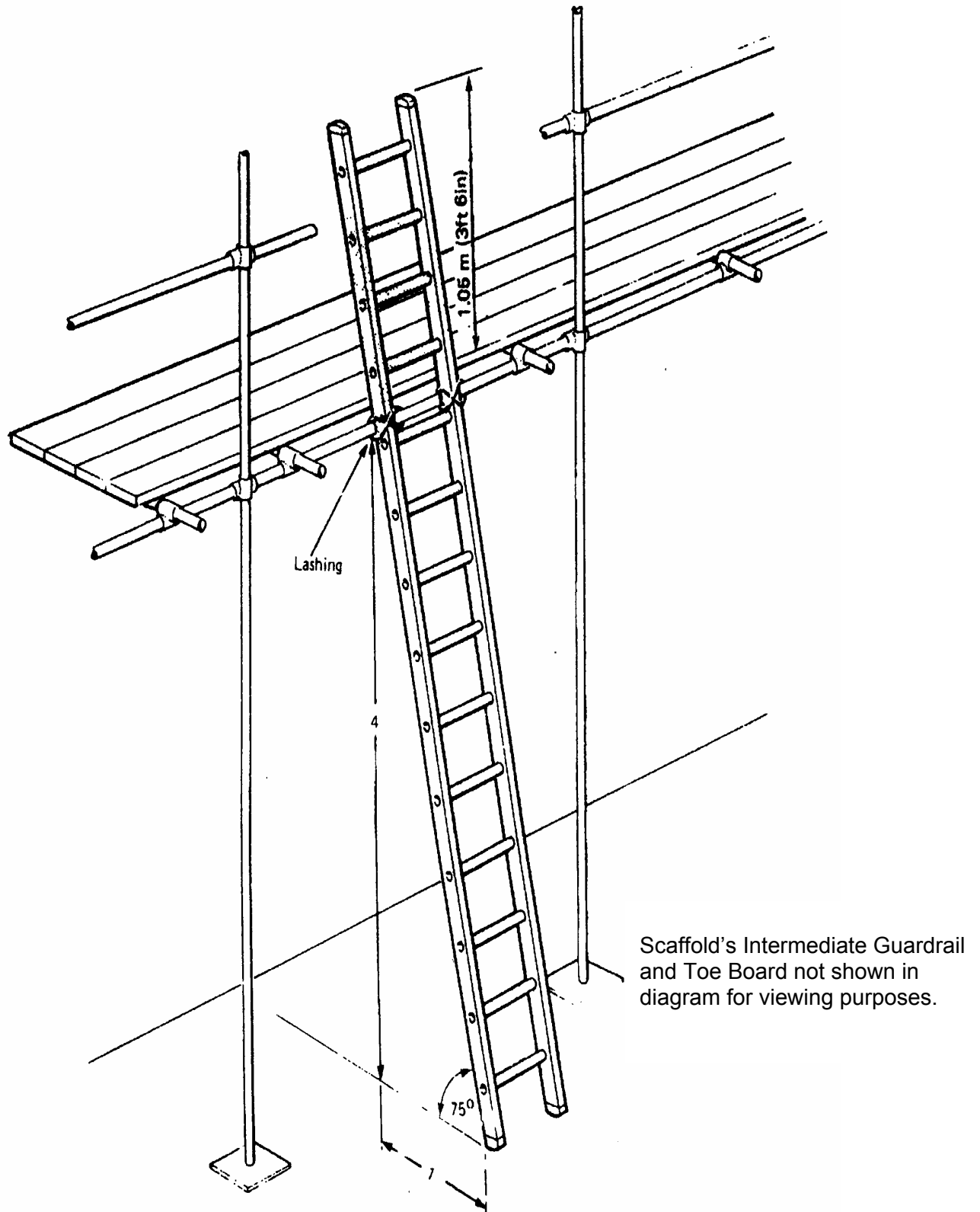
- i) wherever possible, use tools to do a job requiring two hands while standing on a ladder; always, keep one hand on a rung
- ii) drop things from a ladder
- iii) straddle from the ladder to a nearby foothold
- iv) allow more than one person up a ladder at a time
- v) rest tools or implements against the base of a ladder
- vi) use a ladder which is too short
- vii) use a defective ladder
- viii) use a make-shift ladder
- ix) leave tools or objects on rungs unless properly hooked on
- x) over-reach (generally always keep hips within the stiles)
- xi) slide down a ladder
- xii) carry sheets of material
- xiii) carry a ladder on a vehicle which is too short for it or without a purpose made ladder rack fitted
- xiv) paint a ladder, as this can cover up defects
- xv) use metal, metal reinforced or wet ladders near electric cables.

### **Always**

- i) use the correct ladder for the job
- ii) place the ladder at an angle near to 75 degrees i.e. 1 out for every 4 up (see FIG 1) and position to ensure its stability during use.
- iii) ensure any surface upon which a ladder rests is stable, firm, of sufficient strength and of suitable composition to safely support the ladder and any load, and so that its rungs or steps remain horizontal.
- iv) ensure a portable ladder shall be prevented from slipping during use by securing the stiles at or near their upper or lower ends, or by using an effective anti-slip, or other effective stability device or any other arrangement of equivalent effectiveness.
- v) ensure no interlocking or extension ladder is used unless its sections are prevented from moving relative to each other while in use.
- vi) make sure the ladder extends at least 1.075m (3'6) above the level where the worker has to stand or climb off unless other measures have been taken to ensure a firm hold.
- vii) ensure sufficient overlap between stages of extension ladders (closed length of ladder less than 5m (16'0) - 3 rungs; closed length of a ladder 5m (16'0) and over - 4 rungs.
- viii) check that support hooks are properly engaged
- ix) use a bracing board for windows and similar openings
- x) use a bag on a rope or special belt to carry things so leaving hands free for climbing.
- xi) secure all doors likely to foul a ladder
- xii) use two hands in climbing a ladder
- xiii) use one hand to hold on while working on a ladder
- xiv) have an assistant on guard where appropriate
- xv) make sure footwear is in good condition and soles are clean
- xvi) make sure rungs are clean
- xvii) secure ladders firmly and correctly on vehicles when being transported

- xviii) get help with long and heavy ladders
- xix) use only authorised equipment and to the appropriate specification
- xx) keep children and unauthorised persons away from erected ladders
- xxi) report all defects immediately
- xxii) return ladders to store as soon as they are finished with
- xxiii) inspect ladders regularly and keep records
- xxiv) inspect a ladder immediately after any fall or overloading
- xxv) store ladder carefully
- xxvi) ensure a suspended ladder is attached in a secure manner and so that it cannot be displaced, and swinging is prevented.
- xxvii) ensure a mobile ladder is prevented from moving before it is stepped on.
- xxviii) ensure where a ladder or run of ladders rises a vertical distance of 9 metres or more above its base, there are, where reasonably practicable, at suitable intervals sufficient safe landing areas or rest platforms.
- xxix) ensure every ladder is used in such a way that a secure handhold and secure support are always available to the user, and that the user can maintain a safe handhold when carrying a load unless, in the case of a step ladder, the maintenance of the handhold is not practicable when a load is carried. A Risk Assessment must demonstrate that the use of a stepladder is justified because of the low risk and the short duration of use.

# ANGLE OF USE OF LADDER AND HEIGHT ABOVE PLATFORM



**FIG 1**

## **No Ladder Should Be Used If It Has -**

- i) a missing, loose or defective rung or tread
- ii) a rung or tread supported solely on rails, spikes or similar
- iii) an insecure tie rod
- iv) a defective stile or side member
- v) a defective rope or associated fitting (rope operated extension ladders)
- vi) any sign of warping
- vii) missing fastenings or rivets, guide or latching hooks
- viii) make-shift repairs

## **2.0 Working On Roofs**

### **Main Points to Remember**

- i) roof ladders should be designed and constructed properly for the job they have to do
- ii) roof ladders should be strong enough to support an operative when spanning across the roof supports
- iii) the security of the roof ladder should not depend on the ridge capping which is liable to break away from the ridge
- iv) the headboard or anchorboard should, wherever possible, be on the opposite slope of roof and/or be secured by other means such as a rope
- v) in the case of fragile roofs such as asbestos cement sheeting, the use of crawling boards or roof ladders is essential in order to prevent a person falling through the roof covering
- vi) a catch barrier supporting scaffold boards should be used to provide safe foot holds when working on roofs with a slope of over 50°
- vii) care and forethought must be applied to even the smallest roof job

The minimum essentials for roof work are:-

- i) two persons
- ii) one ladder for access securely lashed at the top
- iii) one roof ladder for movement on roof slope lashed to access ladder
- iv) safety ropes

FOR MANAGEMENT IT IS IMPORTANT TO:-

- i) know how and where ladders are being used
- ii) consider whether some safer system of work access can be provided
- iii) install permanently fixed ladders wherever possible
- iv) provide means whereby portable ladders can be secured at the top. If this is impracticable, provide means for securing them at the base
- v) see that provision is made for carrying tools and materials so that the operatives can keep both hands free
- vi) provide adequate arrangements for storing ladders
- vii) institute a system of periodic inspections and keep records
- viii) use only reputable ladders of sound design and manufacture, and keep them in good condition
- ix) ensure that all users have been briefed and are competent in ladder safety.

## **Further Information**

### **Legislation**

Provision and Use of Work Equipment Regulations 1998.  
Construction (Health Safety and Welfare) Regulations 1996.  
Management of Health and Safety at Work Regulations 1999.  
The Working at Height Regulations 2005.

### **Standards**

BS1129 Timber ladders, steps, trestles and lightweight stagings.  
BS2037 Aluminium ladders, steps and trestles.

### **HSEA/COPS and Guidance**

HS(G)150 Health and Safety in Construction  
C1549 (Rev 1) General Access Scaffolds and Ladders.  
IND(G)220 A Guide to the Construction (Health Safety and Welfare) Regulations  
1996  
L22 Safe Use of Work Equipment