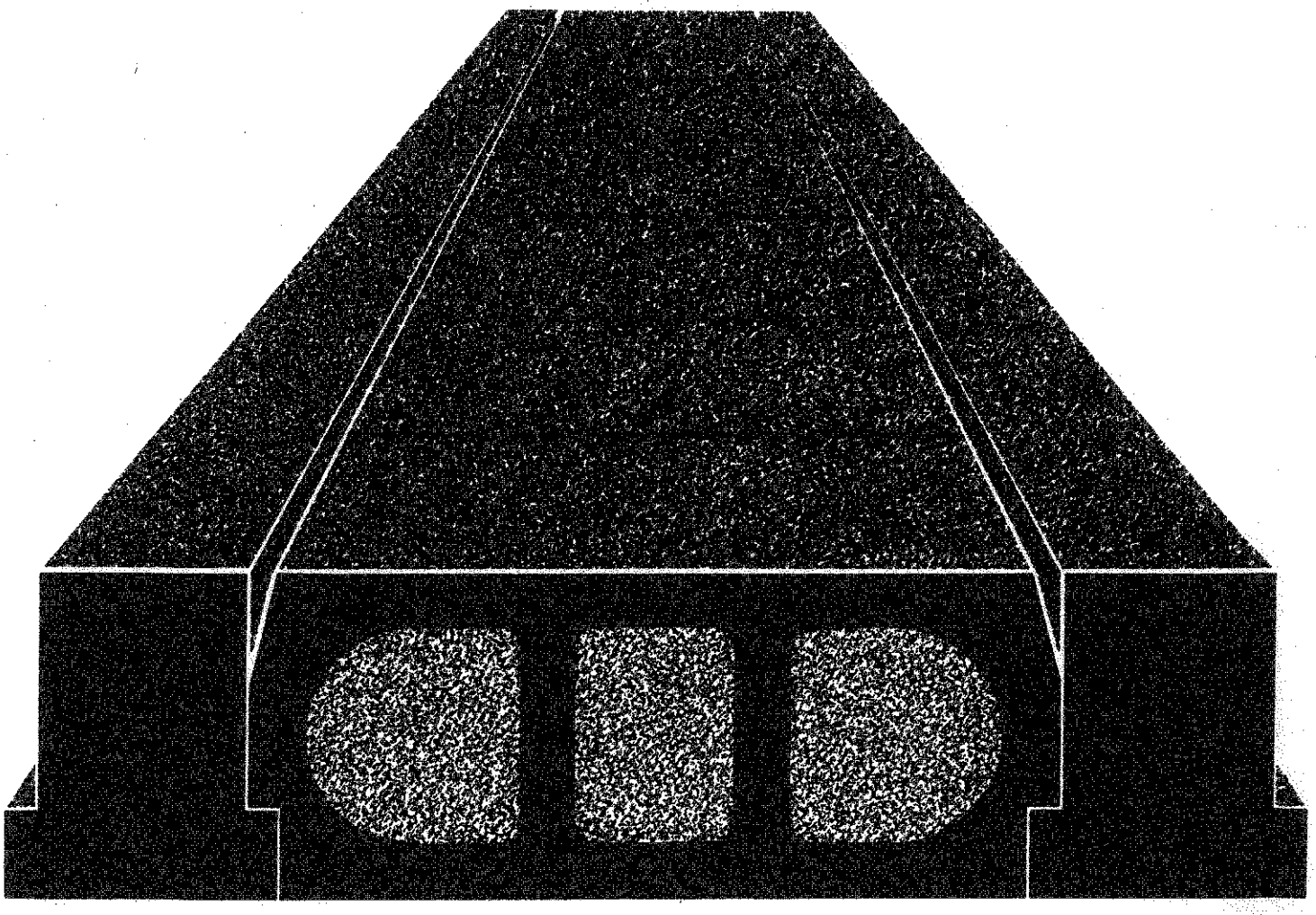
C1/SfB (234) G1 2

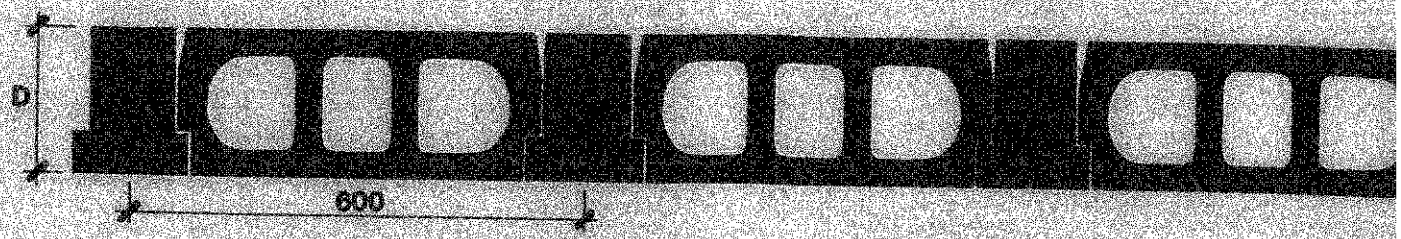
JANUARY 1983

precon

Fully Precast 'T' Beam and Block Concrete Floor



Fully Precast 'T' Beam and Block Floors



One of the most economical and complete ranges of totally precast flooring units that can be supplied and fixed by our own erectors, leaving no make up strips, infill areas or cutting of blocks and can also be supplied for the Main Contractor to erect himself. No special skills are required to give a complete and finished structural floor.

COMPONENTS

Our high strength precast reinforced concrete beams and concrete infiller blocks are all manufactured at our factory with fully automated plant under the most stringent quality controlled conditions.

The beams having been designed to carry all the loads specified are cast with upward camber of approx $\frac{1}{325}$ x span and then steam cured to give high strength performance early in their working life. The hollow blocks are designed to give a floor meeting relevant sound and fire resisting requirements and are capable of withstanding point loads in excess of 450 kg. With our special solid blocks of various sizes, any shape or size of floor can be covered, the 'floating' dimension to match our modules with the building sizes being taken up to within the finest of tolerances.

The ultimate in flexibility is provided for by careful planning at the design stage with full working drawings being prepared by our qualified engineers and designers. Prior to manufacture, details are submitted for the Architects approval.

SUITABILITY

This type of floor construction is recommended for office, hospital, industrial, school and domestic loadings for spans up to 6 metres.

TECHNICAL SPECIFICATION

1. The floor is very rapidly and economically erected as no propping is required, except in special design situations and insitu work is minimal usually restricted to making up round service pipes etc. Minimum grouting required.

2. The adequacy of all bearings and seating is responsibility of the Architect or Engineer. The general Contractor must ensure that all bearings are level prior to the erection of the beams.

3. The beams should be lifted at their ends the correct way up and placed onto the bearings in t positions indicated in the layout drawings.

4. The soffit of the floor is ideal for direct plastering or alternatively a plasterboard or batte ceiling can be used. A most economical arrangement is ceiling hangers parallel to the beams to give battens at 600mm centres with 12mm plaster board. 450mm centres may be achieved with the use of timber inserts placed in the floor.

5. Non load bearing lightweight partitions of block work or stud construction may be built directly off the beams and hollow blocks. Non lo bearing partitions beneath the floor should be lef clear, preferably topped with a compressible laye to allow for dead load deflections of the floor.

6. The floor surface is suitable to receive finishing screeds, quilts or battens and boards. (Due allowances should be made for minor irregularities when considering the use of polystyrene insulation sheets).

7. The solid tray blocks used on bearings are 150mm deep and only require concrete make up c deeper floors. To obtain an accurate fit some cutting may be necessary. Our erectors will take care of all cutting of tray blocks when we are fixing the floor, otherwise this is the responsibilit of the Main Contractor.

8. Care should be taken in stacking the materials on the floor. Blocks used in the construction should be stacked as near to the bearings as possible and never in the line of span.

9. In depth beams and lintels can be formed by either trimmers or angle irons. This should be requested at quotation stage.

10. Special edge beams, landing beams, balustrade details can be incorporated in the layout. This should be discussed with our representatives.

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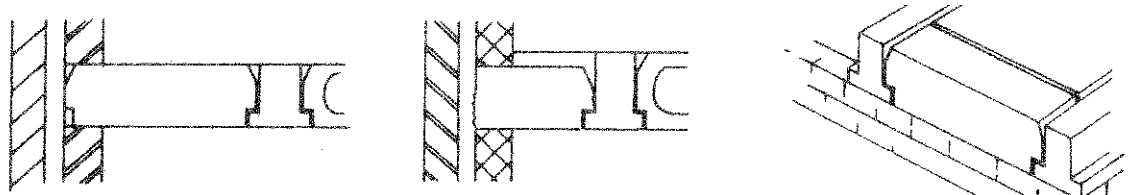
LOADLOADLOAD

Depth mm	Self-Mass kg/m²	Superload + Finishes (kN/m²)			
		up to 4.0	5.0	7.5	10.0
125	200	3.7	3.4	3.3	3.0
150	220	4.5	4.2	3.9	3.5
180	230	5.4	5.0	4.7	4.2
190	230	5.7	5.2	4.8	4.3
200	235	6.0	5.7	5.1	4.6

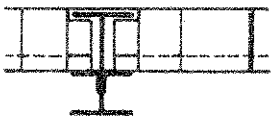
LOAD SPAN TABLE IN METRES
(For Guidance Only)

For longer spans please consult our Engineers

'T' Beam Connections



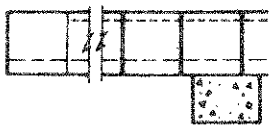
SIDE & END BEARING DETAILS



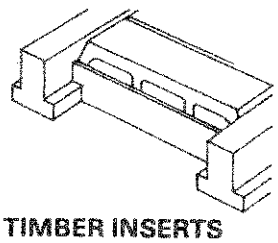
STEELWORK SUPPORT

R.C. BEAM SUPPORT

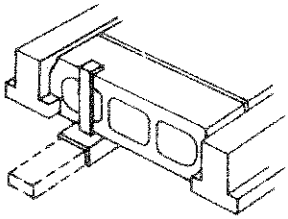
BEAM IN FLOOR DEPTH



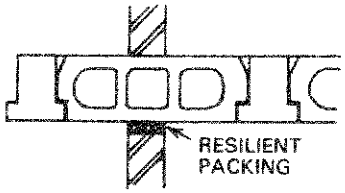
CANTILEVER BALCONY



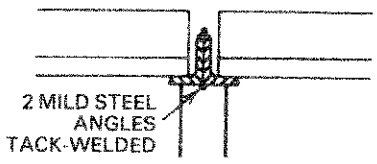
TIMBER INSERTS



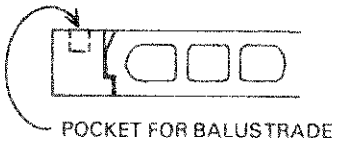
CEILING HANGER



NON LOAD BEARING WALL SUPPORT

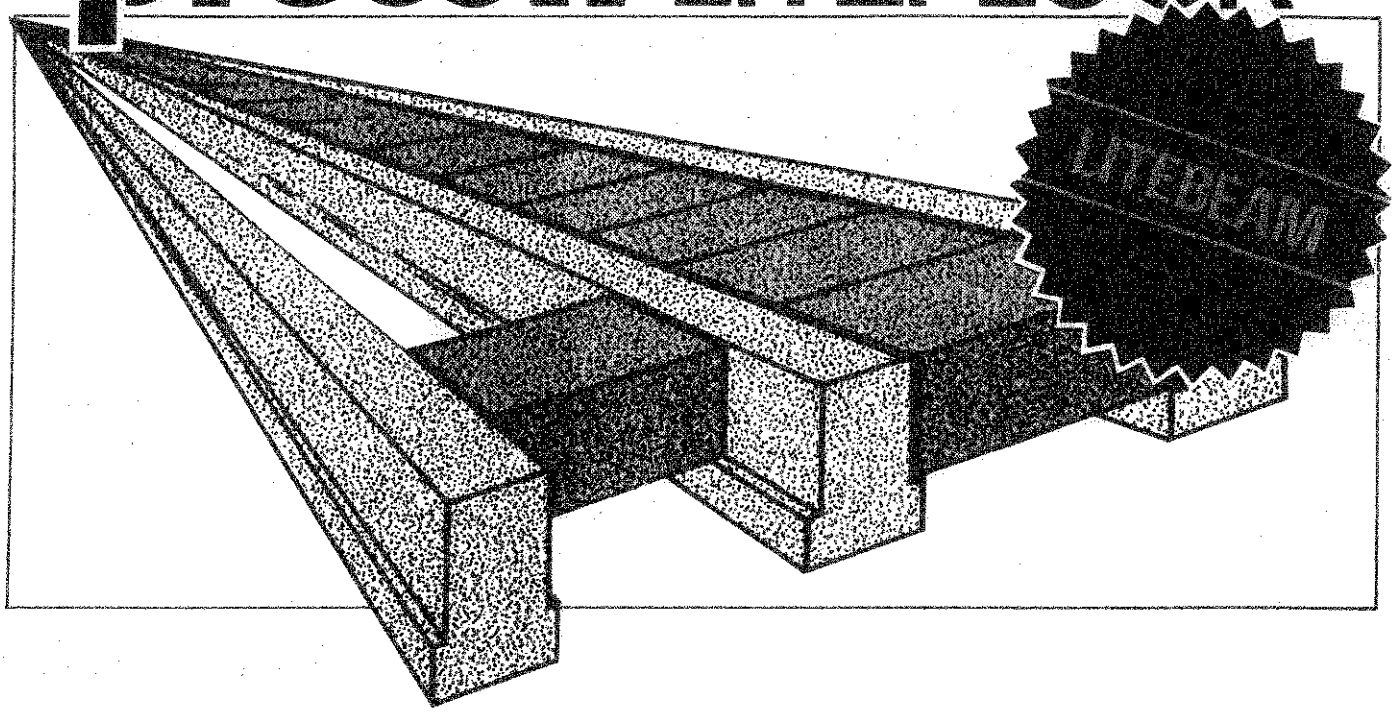


IN DEPTH LINTEL



EDGE BEAM

precon LITEFLOOR



The Precon Litefloor is the latest development in the range of Precon Precast Concrete Floors, particularly economical for ground floors in houses, Saving Energy, Cutting Costs and Increasing Productivity. Take a look at the other advantages it has to offer...

- **Minimises preplanning and cuts down on trades**
- **Reduced site preparation saves time and money in backfill**
- **All dry construction eliminates all wet trades**
- **Lightweight joists with no cranage**
- **Receives all floor finishes**
- **Fireproof, draught proof and eliminates rot**
- **Improves thermal values**
- **Simple all weather method of construction**
- **UK wide availability**

• Speed and ease of handling
Precon precast beams and block Litefloors can be easily manhandled. Normally three men can lay up to 200 sq metres in a day. The infill blocks used are the type found commonly on building sites. Normally 100mm thick building blocks.

• Less preparation
Providing the ground is good no special preparation is needed other than removal of topsoil and vegetable matter plus provision of a space of at least 75mm between the underside of the floor and the ground surface.
If the ground is poor, specialist engineering advice should be obtained.

• An immediate working platform
Once the floor is laid it offers an immediate working platform during the building process. All loads should be within the design limits of the floor.

• No special ventilation
Ventilation of space below concrete suspended floors is not normally required.

• Other uses
Litefloor beams are not confined purely to ground and first floors in houses. Where loading is appropriate they can be used for industrial and commercial uses as flooring and roofing joists and many other supplementary applications such as refurbishment work.

Lack of compaction and subsequent failure of flooring is a frequent claim on NHBC insurance. This is entirely eliminated with Precon Litefloor.

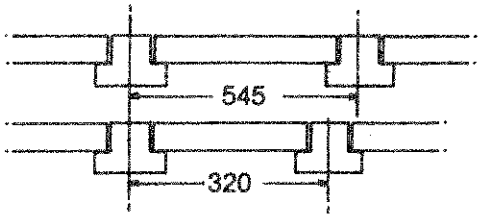
Since June 1974 it has been a mandatory requirement of the NHBC that groundfloors must not be supported off deep infill. Where infill is in excess of 600mm the groundfloor must be suspended.

Many of the failures due to lack of compaction occur where infill is less than 600mm one good reason for **always** using suspended floors.

LOAD SPAN TABLE
Finishes & Partition Loading
KN/m²

S/W KN/m²	up to 3.0	4.0	5.25	6.75	8.5
Effective span – metres					
2.55	4.0	3.75	3.5	3.25	3.0
2.75	4.0	4.0	4.0	4.0	4.0

The above table includes for a superimposed loading of 1.5 KN/m² plus own weight plus finishes and partition loadings indicated.



PRECAST CONCRETE STAIRCASES
We offer a comprehensive service of design, manufacture and erection of precast concrete staircases.

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