

Whelans Precast



Hollowcore



Wideslab



Precast Stairs

- ◎ **Hollowcore**
- ◎ **Wideslab**
- ◎ **PrecastStairs**

Advantages of Precast Flooring and Stairs



Placing Hollowcore



Placing Wideslab



Placing Stairs



Slab Production



Stair Production



Delivery

Speed of Erection

Site activities such as shuttering, steel fixing and pouring of concrete are substantially reduced. All slabs and stairs are manufactured to the specific needs of the building. Slabs can be erected at a rate of up to 100m² per hour.

Fire Resistance

The inherent fire resistance capacity of precast flooring is one hour, which is far in excess of traditional flooring methods.

Sound Resistance

The precast units have a high resistance to impact and airborne sound.

Design Flexibility

Each precast unit is designed using the most up to date computer design system techniques available.

Features like voids and notches can be incorporated into the design of the units at the client's request. All design characteristics conform to BS 8110 Section 4.

Working Platform

A stable and solid working platform is provided immediately after erection with safe access if combined with precast stairs.

Quality Control

Production of precast units in an enclosed factory environment leads to higher quality product compared to open site with climate and workforce variables. All materials used in the manufacturing process are repeatedly sampled and tested by our in house Quality Control department which is regularly and independently audited.

Load Span Tables

HOLLOWCORE (1200 wide)

Depth of Unit (propped with 75mm screed)						
150mm 10No. 9.3mm Strands	Clear Span	4	5	6	7	8
	Maximum Load KN/m ²	33	19	11	6.5	3
200mm 12No. 9.3mm Strands	Clear Span	6	7	8	9	10
	Maximum Load KN/m ²	19	12	8	4.5	2.5
250mm 12No. 9.3mm Strands	Clear Span	7	8	9	10	11
	Maximum Load KN/m ²	17	11.5	7.5	4.5	2.5
300mm 12No. 9.3mm Strands	Clear Span	8	9	10	11	12
	Maximum Load KN/m ²	15	10.5	7	4.5	2.5

Allowances have been made for self weight and 75mm screed

WIDESLAB (2400 wide)

Depth of Unit (propped with 75mm screed)						
100mm 18No. 9.3mm Strands	Clear Span (m)	3	4	5	6	7
	Maximum Load KN/m ²	38.5	20	10	4.5	1.5
125mm 18No. 9.3mm Strands	Clear Span (m)	4	5	6	7	8
	Maximum Load KN/m ²	25.5	14	7.5	3.5	0.5
150mm 20No. 9.3mm Strands	Clear Span (m)	5	6	7	8	9
	Maximum Load KN/m ²	19	11	6	2.5	0.5

Allowances have been made for self weight and 75mm screed

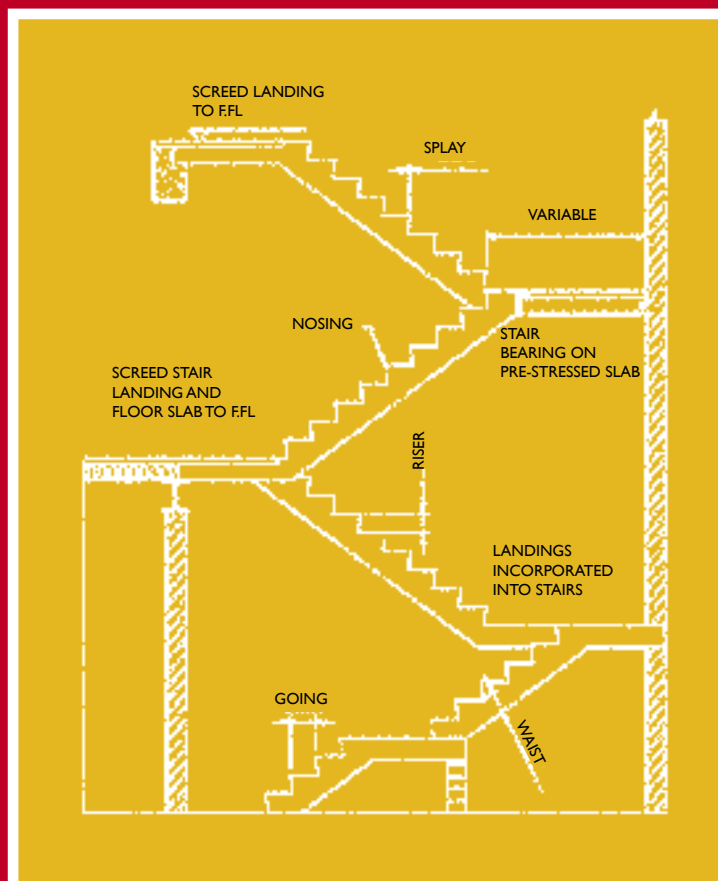
Technical Design Table For Precast Concrete Staircases.

This should only be used as a guide.

Please consult Whelans Precast for each individual project.

Building Application	Riser Limits (mm) Step Height	Going Limits (mm) Step Span	Stair Pitch (degrees)	Width (mm)
Private	175-220	220-250	35-42	Stair & Landing Units-1800mm Max.Width Separate or Attached
Semi-Private	165-190	250-275	31-38	
Public	150-180	280-300	27-33	

All staircases must be designed in accordance with Technical Building Regulations set in the Republic of Ireland



Typical Stair Section



Island Road



Lord Edward Street Campus



Mahon House



Cathedral Place

Projects Completed

Contractor	Project	Amount	Product
John Fleming Construction Ltd	Mallow Mart Site Mallow Co. Cork	10,000m2 500 Risers 7,000m2 3,500m2	100mm Wideslab Precast Stairs 150mm Wideslab 300 Hollowcore
	Mahon House Limerick	3,600m2	125mm Wideslab
	Blackpool Leisure Centre Cork	3,500m2	300 Hollowcore 250 Hollowcore
Michael Lynch Ltd	University Limerick Limerick	1,500m2	300 Hollowcore 250 Hollowcore
	Island Road Limerick	4,700m2	100mm Wideslab
Brian McCarthy	Catedral Place Limerick	2,000m2 150 Risers	200 Hollowcore Precast Stairs
L&M Keating	Shannon Apartments Co.Clare	2,200m2 200 Risers	125mm Wideslab Precast Stairs
	Doonbeg Golf Club Co.Clare	2,500m2	125mm Wideslab
John Sisk & Son Ltd	Quayside Development Sligo	1,300m2 210 Risers	100mm Wideslab Precast Stairs
	Dunns Stores Ashbourne, Dublin	10,000m2 50 Risers	100mm Wideslab Precast Stairs
	Shannon Development Co. Clare	13,000m2 500 Risers	125mm Wideslab Precast Stairs
Chieftain Construction	City Campus Lord Edward Street Limerick	3,000m2 6,000m3 550 Risers	200 Hollowcore 150mm Wideslab Precast Stairs
Pierse Contracting Ltd	UCC Scool of Pharmacy College Road, Cork	3,200m2 100 Risers	100mm Wideslab Precast Stairs
Glenman Corporation	Colaiste Bride Clondalkin, Dublin	2,000m2 120 Risers	125mm Wideslab Precast Stairs
Fitzgibbons Builders	Shannon Development Co. Clare	1500m2	100mm Wideslab

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