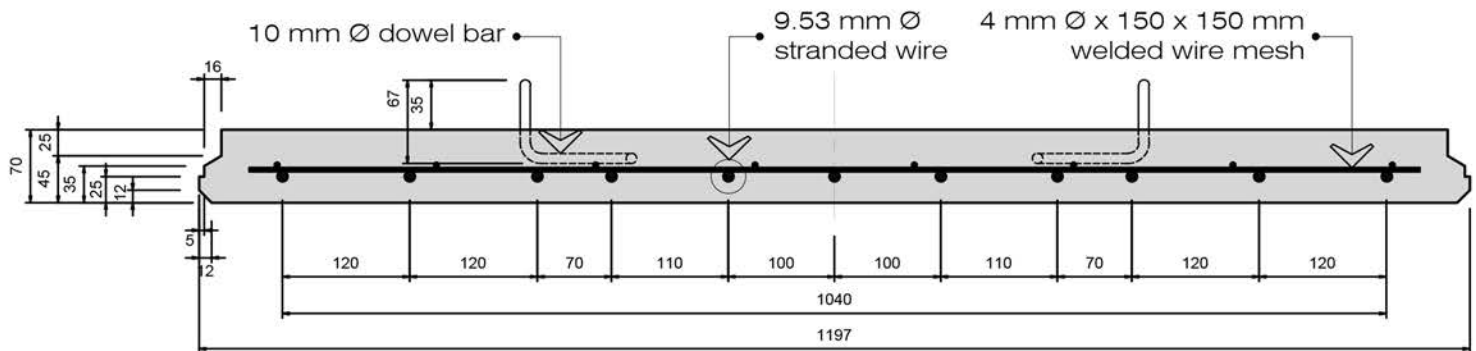


Half Slabs

Precast, prestressed half-slabs with metal dowels designed to provide:

- slab stiffness during handling
- positive ties between the slabs and on-site concrete topping and a composite action between both.

Typical applications: townhouses, commercial buildings, hospitals.



Half Slab Cross Section

TECHNICAL DATA :

CROSS SECTIONAL PROPERTIES

Width, mm	1,197
Height of plank, mm	70
Cross sectional net area, mm ²	82,236
Top fiber to neutral axis (Y _{top}), mm	34
Bottom fiber to neutral axis (Y _{bot}), mm	35
Moment of inertia (I _x), mm ⁴	33 x 10 ⁶
Self weight, kg/m ²	197

CONCRETE PROPERTIES

Concrete density, kg/m ³	2,400
Strength @ 28 days, f'c, MPa	41
Strength @ release, f'ci, MPa	28
Modulus of elasticity @ service, E _c , MPa	30 x 10 ³

PRESTRESSING STEEL

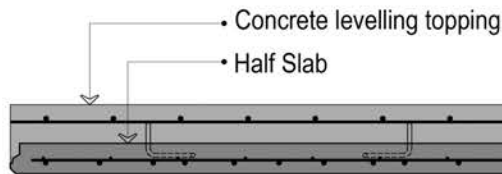
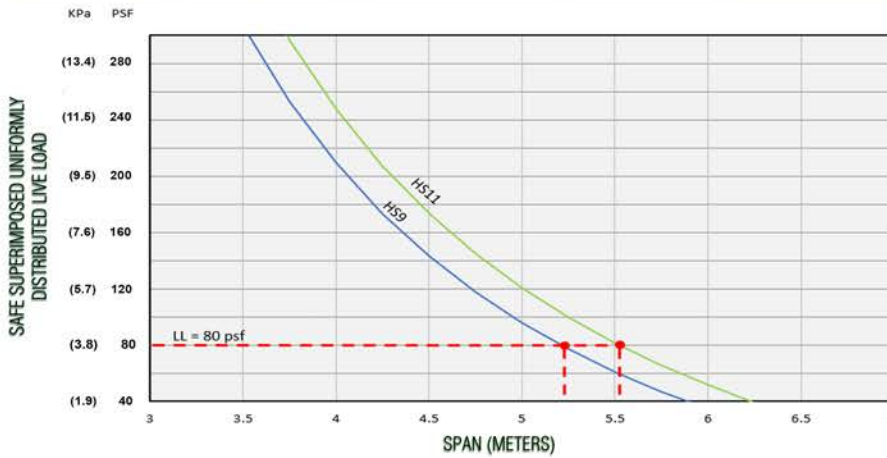
7-wire, high tensile, helical strand	
Ultimate strength, f _{pu} , MPa	1,860
Yield strength, f _{py} , MPa	1,630
Modulus of elasticity, E _p , MPa	195 x 10 ³
Nominal diameter, D, mm	9
Area of wire, A _p , mm ²	55

CONCRETE TOPPING

Provide concrete with a minimum strength @ 28 days, f'c, = 21 MPa with 50 mm height from top of plank.

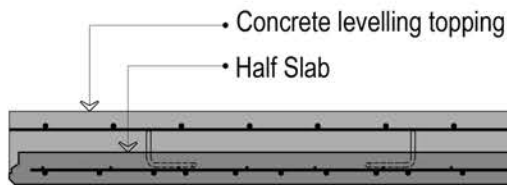
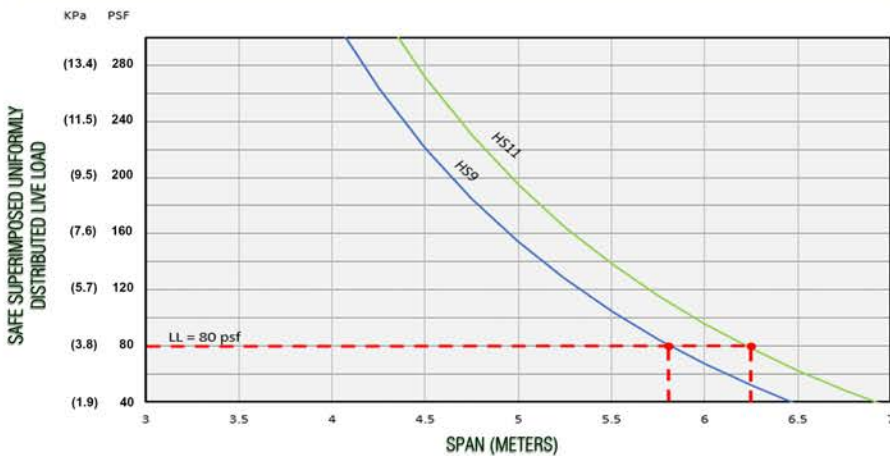
Wire mesh reinforcement 6 mm diameter at 150 mm o.c.

CAPACITY CURVE OF HALF SLAB WITH 50 mm STRUCTURAL TOPPING



HALF SLAB WITH 50 mm CONCRETE TOPPING

CAPACITY CURVE OF HALF SLAB WITH 75 mm STRUCTURAL TOPPING



HALF SLAB WITH 75 mm STRUCTURAL TOPPING

Guide in using the half slab capacity curve :

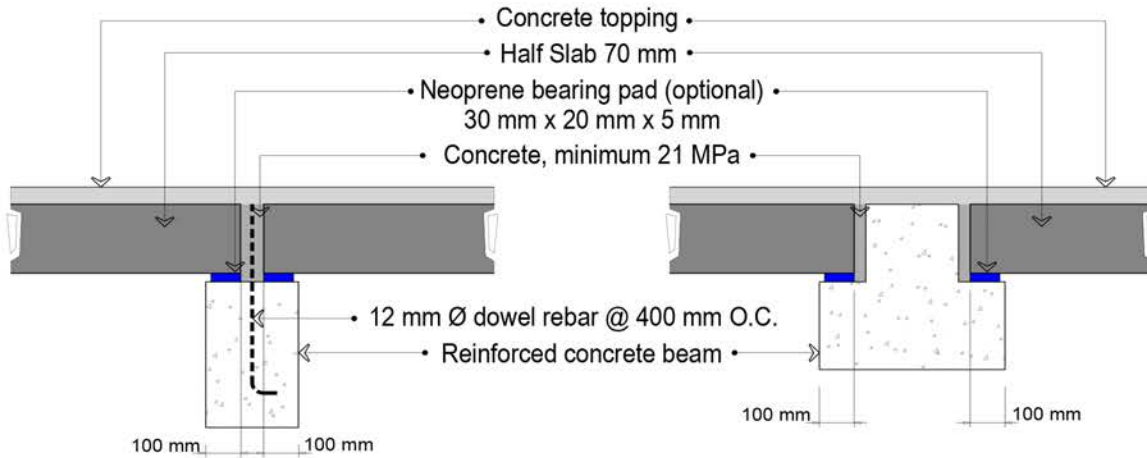
1. Service live load (LL) shall be determined by the user/ designer.
2. Locate the live load in the graph.
3. Select the type of half slab depending on the span needed.

Legend :



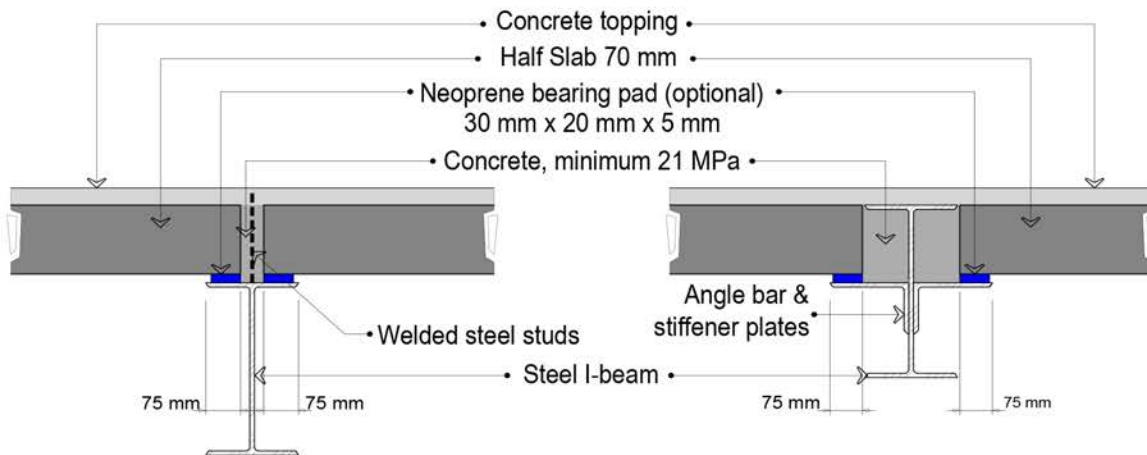
Note :

For higher loads and/or longer spans, please contact your Jackbilt Precast Specialist.



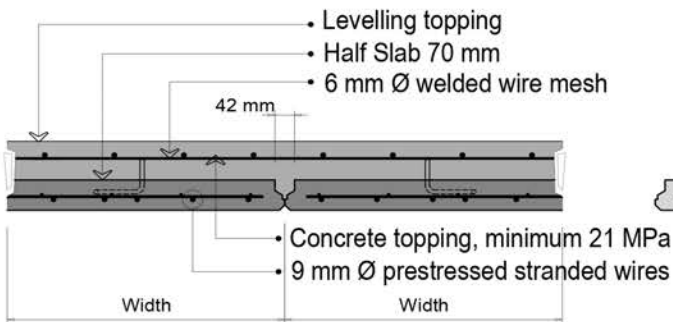
CONNECTION DETAIL ON TOP OF CONCRETE BEAM

CONNECTION DETAIL ON CORBEL TYPE CONCRETE BEAM

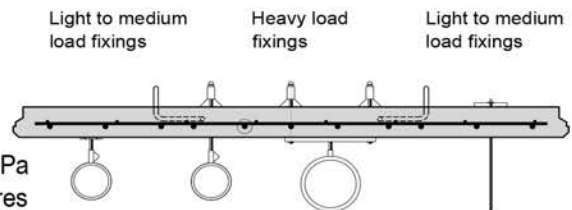


CONNECTION DETAIL ON TOP OF STEEL BEAM

CONNECTION DETAIL INTEGRATED WITH STEEL BEAM

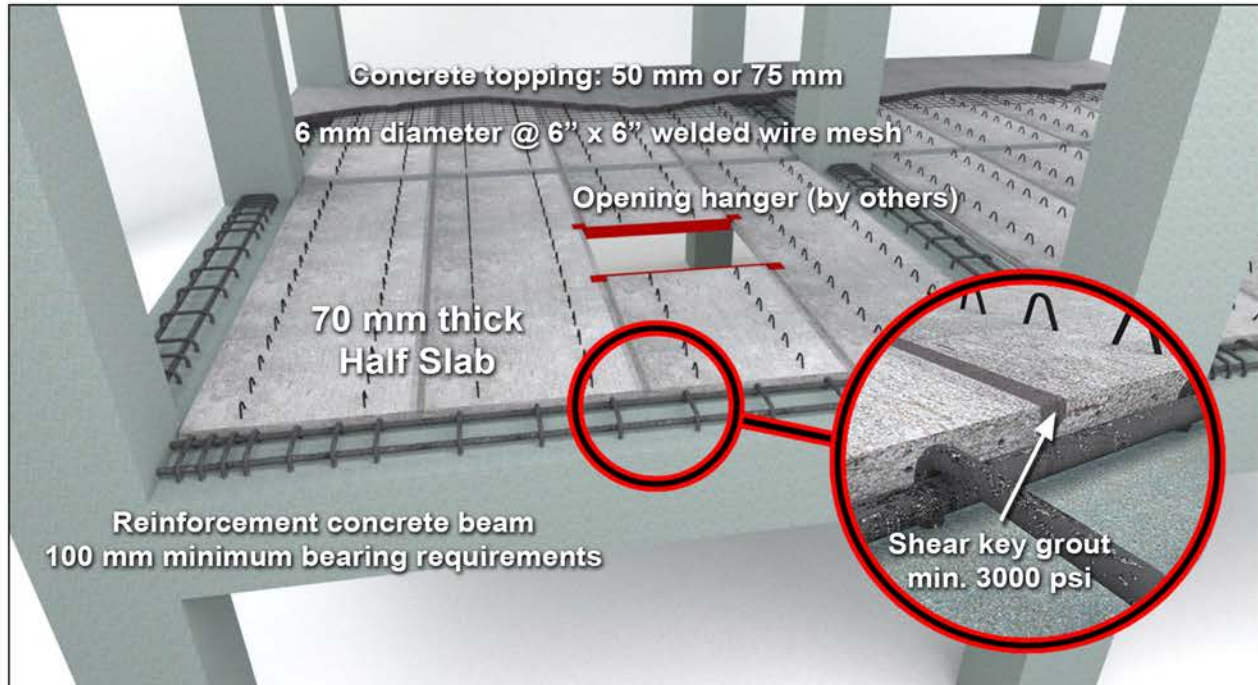


HALF SLAB CONNECTION DETAIL



LOAD FIXINGS DETAIL

TYPICAL INSTALLATION



SHORING

Only 1 shoring needed for every 3 meter span.



SMOOTH SOFFIT

- No need for drop ceiling
- Directly paintable