

CENTERING AND SHUTTERING

Shuttering is the temporary ancillary construction used as a mould for the structures in which the concrete is placed and allowed to harden

These are classified as steel, wooden, plywood, combined wood-steel, reinforced concrete and plain concrete

Requirements of shuttering

The material should be cheap and should be suitable for re-use several times

It should be practically water proof so that it should not absorb water from concrete

It should be strong enough to withstand all loads coming on it

It should be stiff enough so that deflection is minimum

The surface of the formwork should be smooth and it should afford easy stripping

Loads on formwork

Live load due to labour etc

Dead weight of wet concrete

Hydrostatic pressure of the fluid concrete

Impact due to pouring concrete

Shuttering for column

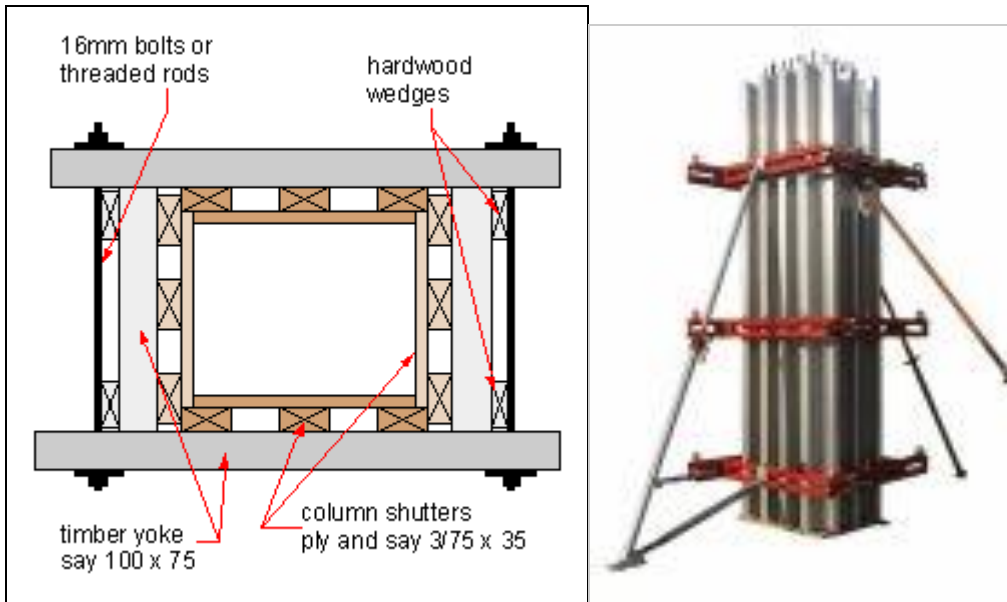
Components

Sheeting or column shutter all around the column

Yokes

Wedges

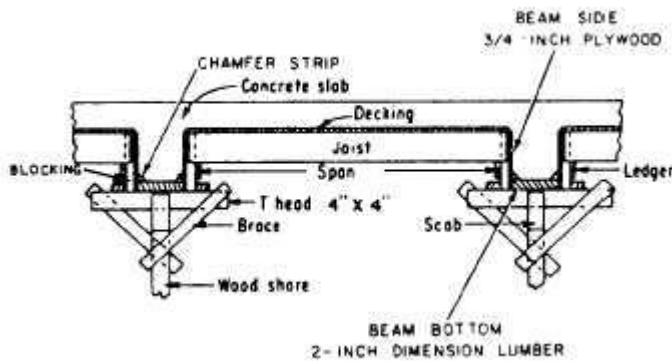
bolt



Shuttering for beam and slab floor

The slab is continuous over the beam

The slab is supported on 2.5 cm thick sheeting laid parallel to the main beam



form work for stairs

Shuttering of walls

The boarding may be 4 to 5 cm thick for walls up to 3to 4m high

The boards are fixed to 5cmX10cm posts known as struts are soldiers