Traditional Formworks
Features of traditional formwork

1. Usually timber in the form of plywood, planking, batten and joist are used as the basic material.

- Plywood
- Batten/joist
- Planking

Batten (stud) to stiffen the plywood panel

Plywood with plastic coating to make the surface more smooth and durable
2. Installation of the formwork is on a labour-intensive basis.

Human workers need to enter into every corner to perform the formwork installation works.
3. The work operation is so designed to allow a single worker can handle his work basically by oneself.

Size and weight of each formwork panel is so designed in the right combination to be moved and lifted for installation by a single worker.
Features of traditional formwork

4. Except for simple hand-tools, limited machinery is required in the installation process.

5. Every work location is required to be taken care by human workers.

6. Works are repeated from location to location or from floor to floor. For example, when workers completed the installation of formwork on the lower floor, they need to get up to the upper floor and repeated the works again though they are basically the same.
Features of traditional formwork

7. Tailor-design work can be achieved especially for complicate-shaped building details or layout.

8. Efficient for small scale and non-typical building projects where identical component cannot be used.

Relatively small site with limited building area on each floor
Wall Formworks and its components

- Timber
- Walings
- Battens or stiffening stud
- Tie rod with bolts & nuts
- Kicker plate
- Timber joists
Wall Formworks and its components

Floor soffit

Timber joists to support the floor soffit

Metal prop (tubular frame)
Staircase formworks – floating panel interfacing with adjacent wall
Staircase formworks – typical location where manual-type timber formwork system applied

Tread and Riser formed by timber plank board

Tread and Riser using metal forming module
Staircase formworks - Complicated 3-dimensional geometry of a staircase also makes it more suitable for the use of manual method.
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Final stage of wall form installation before the placing of the slab formworks
Placing of the slab formworks
Wall and Floor formwork further complicated under situation with high-headroom
Wall and Floor formwork further complicated under situation with high-headroom
Fixing the Slab and beams reinforcing bars

- Electrical conduits to be embedded in floor concrete
- Shutter boards for the flower box
Fixing the Slab and beams reinforcing bars

Electrical conduits to be embedded in floor concrete
The floor interior with the formwork final fixing, adjusting and securing being completed ready for inspection before concreting
Placing of concrete for the slab and beams

Gangway set up for the placing of concrete using wheel barrow

Leveling of the surface after concreting
Typical handling and work sequence – Case 1, building of smaller area
Typical handling and work sequence - Case 1
Typical handling and work sequence - Case 2, building of larger area
Typical handling and work sequence - Case 2, building of larger area
Part A - site record photos – Suite 2