

## Planning process

FFC assists the configuration of shoring units for buildings under construction (e.g. slabs of multi-storage buildings, ramps and bridge beams). The approach to the task, is to pattern the plan of the object into segments of shoring units that comprises both a formwork build-up and a corresponding supporting structure as separate modules. But both have to be planned well-coordinated:

- Starting with the formwork: It must match with the bay lengths of the supporting structure
- Starting with the supporting structure: It must match with the primary beams of the formwork build up

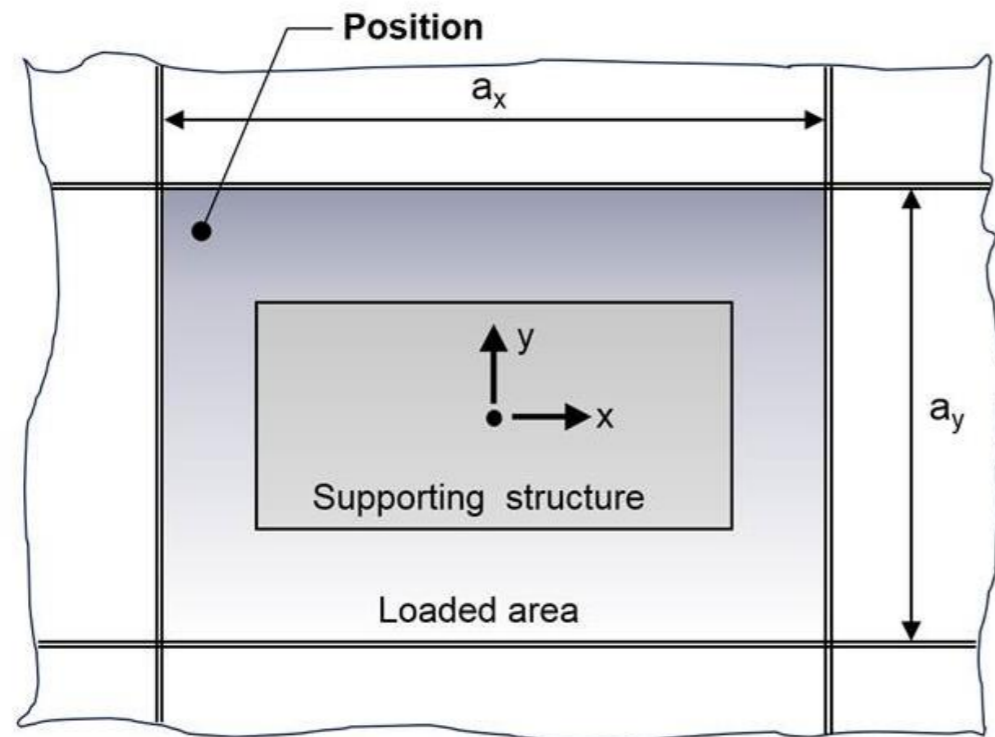


Figure 1: Layout of a shoring unit as segment of a formwork pattern

### Figure 1 displays:

- The area of the segment  $a_x * a_y$  represents the loaded area
- The loads are transferred to the standards of the supporting unit via the formwork structure
- The formwork structure is connected to the supporting structure via the primary beams
- The related preassembling drawing of formwork build-up and the “FFC-Report: Assembling” have to be brought together by an identifier of their position in the formwork pattern.

A “FFC-Report: Assembling” contains all required information in order to assemble a supporting structure unit ready for use without any further drawings!

It must be backed up with related FFC-Reports: “Proof of Load Bearing Capacity” and “Proof of Serviceability”.

The supporting unit is only valid with a corresponding formwork build-up, which is the result of a separate planning process.

## Handling on site

### Generally

This paper gives direction, how to handle consequently FFC results for the preassembling of shoring units!

### Precautions

1. Check the actual clearance, from top of the head plate to the bottom of the base plate. Which may differ, because of changed dimensions of the formwork build-up and alterations of the supporting ground level.
2. Check if the restraints assumed for the proof of load bearing capacity match the site situation:
  - On top:
    - Stop ends of the formwork build up to walls and columns
  - At base:
    - Full contact between base plates and the supporting ground
    - If necessary particular linings, in order to establish the required friction between base plates and ground, are placed accordingly

### Assembling process

1. Follow the sequence of standard components as given
2. In any case do not exceed the extension lengths of base or head jacks

Changes might reduce the load bearing capacity of the supporting units substantially!

### List of materials

The list of materials (components) represents the shoring structure for only one single shoring unit. If the assortment of components as listed is not available, one may vary it deliberately in the range of the used scaffolding system. In such a case, the proof of load bearing capacity must be renewed!

### Health and safety

Follow the particular health and safety instructions on site as well as the general assembly instructions of the manufacturer of the applied scaffolding system!