Elements of Construction

Крепежни Елементи

Architects must understand the physical limitations of their medium. Without an understanding of **construction**, architects cannot understand a building's possibilities and limitations. There are several features that all buildings have in common. Among them are **foundations**, **roofs**, walls, and **openings**.

Every building begins with a solid foundation. Most buildings have either a **slab-on-grade** or **pile-driven foundation.** From here, the **structure** of the building begins to take shape. There are two main types of building structure. In **solid construction**, the walls **support** the building. In **framework construction**, a light **framework** holds the building together. This framework may be made of wood, metal, or even concrete.

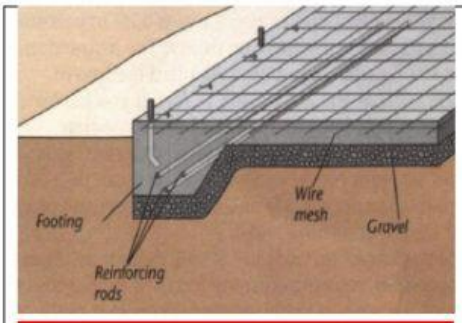
Architects must know the difference between different types of walls. **Load-bearing walls** are integral to the structures of the building. Architects must plan in advance for openings like doors and windows. Non-load-bearing walls provide much greater design flexibility. **Curtain walls** are exterior non-load bearing walls. Curtain walls allow an immense range of creative freedom.

It's very important for the architects to know and understand the elements of construction. Every single building has something in common. Each has **foundations** (основи), **walls**(стени) , **roofs**(покриви), **beams**(греди),openings(отвори за врати)

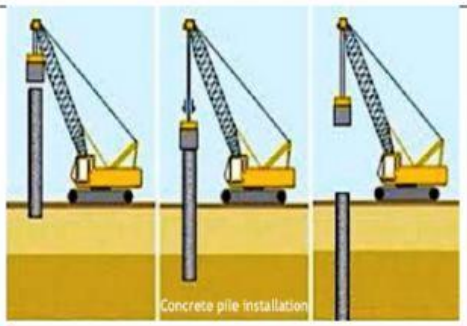
Solid construction(масивното строителство) can use **slab-on-grade foundation** (плочи) or **pile-driven foundations** (пилотна основа)

Framework construction (немасивно строителство)relies on a light **framework** (рамка) .

Architects must make a difference between a **load-bearing wall** (носеща стена) and **curtain walls**(интериорни стени), also known as non-load bearing walls



Slab-on-grade foundation



pile-driven foundations

LIVEWORKSHEETS

Ex.1

Match the words and phrases with the definitions (A-I).

foundation | solid construction | framework construction | construction | roof | structure | opening | framework | support

A to bear weight or prevent something from collapsing

B the base of a building that touches the ground

C a skeleton-like internal structural system

D a basic system that holds something together

E a building process in which the walls support weight

F the external protective structure at the top of a building

G a building process in which a skeleton-like structure supports weight

H the process of assembling a building

I an empty space that people or things can move through

Ex2

Read the sentence pairs. Choose which phrase best fits each blank.

slab-on-grade | pile-driven foundation

1 A) A _____ is built into the ground.

B) A _____ is built on top of the ground.

load-bearing wall | curtain wall

2 A) If you remove a _____, the building will fall down.

B) Removing a _____ does not damage the building's structure.

LIVEWORKSHEETS

Ex.3 Listening

Listen to a conversation between an architect and a contractor. Mark the following statements as *True* or *False*.

1 The woman made an error on a building plan.	**True**	**False**
2 The woman believes that a load-bearing wall will not be strong enough.	**True**	**False**
3 The man will check with the structural engineer about the changes.	**True**	**False**

LIVEWORKSHEETS