TYPES OF WALLS USED IN CONSTRUCTION

5.1. Vocabulary

Ex. 1. *Match the words to their Russian equivalents.*

1. precast concrete wall	a. пустотелый бетонный блок
2. façade brick 	b. облицовочный кирпич
3. hollow concrete block	c. перегородочная стена
4. retaining wall 	d. плита
5. pass-through	e. сборная бетонная стена
6. slab	f. подпорная стена
7. partition wall	g. проход

Ex. 2. *Match the words to their definitions.*

1. bond	a. a skilled worker who builds structures using materials like brick, stone, or concrete
2. hollow brick	b. the state of being slightly wet or moist, often due to humidity or water damage
3. mason	c. a sideways or horizontal force acting on an object
4. lateral force	d. a type of strong board made by gluing together thin sheets of wood, often used in construction
5. sheathing material	e. a type of brick that has empty spaces inside, making it lighter and easier to handle than solid bricks
6. dampness	f. a covering material used to protect the exterior surface of a building, such as plywood or fiber cement boards
7. stud wall	g. the distance between two opposite surfaces of an object; how thick something is

8. plywood	h. the process of joining two things together, usually using adhesive or glue
9. thickness	i. a type of wall made up of vertical wooden or metal studs and covered with sheathing material

Ex. 3*. Complete the sentences with the following words:*

pass-through, façade, mason, plywood, thickness, retaining, hollow

I saw a pile of _____(1) concrete blocks at the construction site.

The architect chose red _____(2) bricks to make the building look more attractive.

We built a _____(3) wall to keep the soil from eroding.

The store has a _____(4) between the two rooms for easy access.

My dad used _____(5) to fix the broken shelf.

The _____(6) of the walls is important for insulation.

My uncle is a _____(7) and he can build beautiful stone walls.

5.2. Reading

Ex. 1. *Read the text.*

Types of Walls

Following are various types of walls used in building construction:

1. Load Bearing Wall

It carries loads imposed on it from beams and slabs above including its own weight and transfer it to the foundation. These walls supports structural members such as beams, slabs and walls on above floors above. It can be exterior wall or interior wall. It braces from the roof to the floor.

Types of Load Bearing Wall

- Precast Concrete Wall
- Retaining Wall

- Masonry Wall
- Pre Panelized Load Bearing Metal Stud Walls
- Engineering Brick Wall (115mm, 225mm)
- Stone Wall

As the height of the building increased, the required thickness of wall and resulting stress on foundation will also increase and cause it to be uneconomical.

2. Non Load Bearing Wall

Non-load bearing walls only carry their own weight and does not support any structural members such as beams and slabs. These walls are just used as partition walls or to separate rooms from outside. It is known as interior wall (doesn't carry other load than its own load.

Types of non load bearing wall

a) Hollow Concrete Block
b) Façade Bricks
c) Hollow Bricks
d) Brick Wall (115mm, 225mm)

3. Cavity Walls

It is a wall constructed in 2 leaves / skins with a space / cavity between them. A type of building wall construction consisting of an outer wall fastened to inner wall separated by an air space. Cavity walls helps to prevent the penetration of rain to the internal surface of the wall.

4. Shear Wall

Shear walls are a framed wall designed to resist lateral forces. It is a vertical elements of the horizontal force resisting system. It is used to resist wind and earthquake loading on a building. It is typically a wood frame stud walls covered with a structural sheathing material like plywood.

5. Partition Wall

Partition wall is an interior non-load bearing wall to divide the larger space into smaller spaces. The heights of a partition wall depends on the use which may be one storey or part of one storey. These walls are made up of glass, fiber boards or brick masonry.

6. Panel Wall

Panel wall is generally made of wood and is an exterior non-load bearing wall in framed construction. It is used for aesthetics of the buildings both inside and outside. It remains totally supported at each storey but subjected to lateral loads.

7. Veneered Walls

Masonry veneer walls is a single non-structural external masonry wall made of brick, stone or manufactured stone. It has an air space behind and is called as anchored veneer.

8. Faced Wall

Faced walls has the facing and backing of two different materials are bonded together to ensure common action under load.

Ex. 2. *In the text, find the following phrases:*

1. нагрузка на фундамент

2. (несущие) элементы конструкции

3. предотвратить проникновение дождя

4. внешняя стена, прикрепленная к внутренней стене

Ex. 3. *Answer the questions.*

1. What is a load bearing wall and what does it support?

2. Why can the thickness of a load bearing wall become uneconomical as the height of the building increases?

3. What is a non-load bearing wall, and how is it different from a load bearing wall?

4. What are some examples of materials used to construct non-load bearing walls?

5. What is a cavity wall, and what purpose does it serve in building construction?

6. How do shear walls resist lateral forces on a building, and what materials are typically used to construct them?

7. What is a partition wall, and what is its function in building design?

8. What is a panel wall, and where is it typically used in framed construction?

9. What is a veneered wall, and how is it constructed?

10. What is a faced wall, and how is it different from other types of walls?