

## **Sustainable Design and Building & Standards**

The New Construction standards can be used to assess the design, construction, intended use and future-proofing of new building developments, including the local, natural or manmade environment surrounding the building. The standards can be used to assess most types of new buildings, including new homes and new-build extensions to existing buildings.

Each uses a common framework that is adaptable, depending upon the building's type and location.

Buildings are the primary drivers of energy and emissions use at Khazar University, making them an important target for innovative energy efficiency measures. They are also where Khazar's students, faculty, and staff live, work, and learn, emphasizing the need to consider the health and well-being of occupants in the design and construction of campus spaces.

Green standards certification is a current trend in real estate in Azerbaijan. It certifies how the building is built, constructed, maintained and operated. Green Zoom Azeri is the local green standards of energy efficiency based on Russian standards Green ZOOM.

Now Khazar is working on the latest version of its university - wide Green Building Standards aimed at tackling these challenges.

The Standards, will apply to all capital projects across campus, provide a wide variety of requirements and recommendations that help Schools and departments achieve the University's sustainability Goal through the design and construction of sustainable building spaces. An associated Life Cycle Cost policy ensures that project teams evaluate and chose energy efficient technology that will provide environmental benefit in a cost-effective manner.

### **What difference does New Construction make?**

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New Construction benefits property investors, developers, owners and occupiers by: considering impacts and costs from a lifecycle perspective:

- reducing operational costs;
- enhancing the buildings economic and social value whilst mitigating its environmental impact;

- creating better living and working environments for people, enhancing occupant satisfaction;
- enhancing market demand, helping developers and owners to attract tenants, occupiers to attract and retain staff;
- driving improvement in sustainable building approaches and technologies
- giving independent, third party certification of a development's sustainable credentials;
- contributing to corporate social responsibility, business reporting and sustainable business leadership.
- The updated Standards will include healthy material requirements for the disclosure of health and environmental impacts of products that are used on campus in order to help Khazar University assess opportunities to understand the community's exposure to potential toxins.

## **Sustainable Design and Building**

Khazar University has been working to meet international green buildings standards in particular, satisfies President Ilham Aliyev's Decree on 'Comprehensive Action Plan for improving the ecological conditions in the Republic of Azerbaijan'.

University would like to clarify its commitment, standards and practices for sustainable design and building. In doing so the following features can be realized as part of building project:

- The University building will be designed in a highly efficient manner to provide the most comfortable environment for its students – almost 100% of all students rooms have access to daylight and outside views, and fresh air is provided all year round through the use of combination of mechanical intake and natural exhaust.
- Energy efficiency is achieved through advanced architectural design (building orientation and shape; access to daylight), natural air extract systems, efficient high-end lighting and automated controls.
- Alternative modes of transport are stimulated through the introduction of specialised facilities including cycle racks and electrical charging stages.
- Water efficiency is accomplished through efficient sanitation fittings, drip feed irrigation and leak detection system.
- During the design stages of the project a series of studies were conducted to make informed decisions on design alternatives – such as energy modelling in line with the international ASHRAE standard and the lifecycle impact assessment of materials with the use of the IMPACT tool.
- State-of-the-art landscaping will enhance local biodiversity through the introduction of flora from other regions that have similar climatic conditions. The new ecosystem will enrich the area and enhance it as an aesthetically appealing destination

The Standards are developing together with University - wide review process led by the Sustainability and Energy Management Council (SEMC), An SEMC review committee will comprise of facility leaders and experts across Khazar University focused on data-driven decision-making that was informed by best practices at the University and benchmarked against

other industry leaders. Additional updates include a requirement for energy reduction targets, and revisions to Measurement and Verification standards that are used to assess the effectiveness and performance of energy and mechanical systems.

Updating the standards will include a large effort that required support and participation from many key stakeholders across the University. The thorough review and collaboration of the committee will help us to strike the proper balance between setting the bar where it will be attainable and ensuring that we will continue to challenge ourselves to push the limits of what is possible,