Building it Differently
UCA’S CONSTRUCTION APPROACH
The University of Central Asia (UCA) is building residential campuses at high altitude sites in Naryn, Kyrgyz Republic and Khorog, Tajikistan and preparing for construction in Tekeli, Kazakhstan.

The location and topography of the campus sites pose particular challenges to this ambitious endeavour, as do capacity deficits in the region. In response, the University has developed a centralised, phased construction strategy that harnesses the talent of award-winning designers, an experienced multinational construction management team and specialised regional and local contractors to maximise construction efforts and outcomes.
World Class Design, Local Implementation

Award-winning Japanese architect Arata Isozaki and his firm, Isozaki, Aoki & Associates (IAA) developed the design for UCA’s three campuses under the University’s initial single phase construction plan. Following UCA’s shift to a multi-phased construction approach, IAA acts as oversight architect, ensuring that Isozaki’s original vision is retained while UCA manages the day-to-day aspects of detailed design.

UCA’s multi-packaged construction strategy harnesses the talent of local and international designers and an experienced multi-national construction management team, together with specialised regional and local contractors.

AECOM was appointed as the Phase I executive designer and lead consultant for the development of the Naryn campus design. Together with London architectural specialist Gensler and delivery specialist Dizajn Arhitektura (DA), the AECOM executive design team managed design delivery and oversaw all necessary permitting. At the Khorog campus, Gensler was retained as executive designer and lead consultant for Phase I. The Gensler executive design team is responsible for design delivery and necessary permitting, together with DA and Tajik company Saniiosp. The design process is managed directly by UCA to maintain quality, facilitate value engineering sessions, monitor progress and construction costs based on design information and ensure timely completion.

Award-winning Architect Designs UCA Campuses

Internationally renowned architect Arata Isozaki is a recipient of several architectural awards, including a gold medal from the Royal Institute of British Architects for his contribution to international architecture. He served on the jury of the Aga Khan Award for Architecture and the Pritzker Architecture Prize, and as visiting professor at universities in Japan and the United States, including the University of California at Los Angeles, the Rhode Island School of Design, Columbia University and the University of Hawaii. Isozaki’s notable design projects include Team Disney, Orlando; the Kyoto Concert Hall, Japan; the Museum of Contemporary Art, Los Angeles; the 1992 Olympic Games Main Sports Hall, Barcelona; the Brooklyn Museum Extension, New York; and Weill Cornell Medical College, Qatar.
Centralised Procurement, Widespread Benefits

UCA utilises an in-house Agency Construction Management (ACM) approach. The University’s management team engages and directly manages several contractors handling specific work packages. ACM also offers greater control over construction programming.

To facilitate year-round operations, particularly optimal winter working conditions, UCA construction commences in the spring in order to complete the sub and super structure package, as well envelope packages such as the roof, façade and external doors and windows. This ensures a weathertight structure by winter and allows internal work packages to continue at maximum efficiency during the winter.

ACM can be more complex than general contracting. However, it is the best option for mitigating risk because it maximises in-house control. ACM also allows for flexibility in appointing contractors, maximising the University’s local economic impact (see Page 7) while offering greater control over cash flow and design changes throughout construction.

Finally, ACM helps safeguard the health and safety of construction workers through direct contracting with UCA. The University adheres to international labour and safety standards, and direct contracting safeguards against the less strident policies of an intermediary general contractor.
Phased Construction, Maximised Resources

UCA facilities are constructed with an approach that allows future phases to be built independently. The carefully developed strategy minimises the need for retrofitting as each campus grows, reduces disruption, and allows existing utilities and infrastructure to expand as new phases are added.

UCA’s phased construction process also provides greater control and flexibility during the University’s establishment period. Phased construction enables UCA to react to market responses to initial phases and allow modifications to be incorporated into subsequent phases. This approach ensures that UCA’s growth is aligned with economic trends and market demand.

(Left) Construction teams lay shingles for the roof of the Academic building at the UCA Naryn Campus
(Top Right) Skimming works in the Khorog Campus Academic Block east wing
(Right) Pouring concrete for the future Sports Dome at the Khorog Campus
(Below) Phase I UCA Naryn Campus Academic Block and Dormitories
Economic development is at the heart of UCA’s construction strategy, which strengthens existing enterprises and promotes the establishment of new ones. UCA engages a broad range of local and regional contractors and subcontractors, a strategy that maximises local economic impact. In the first phase of construction, UCA operations have created more than 1,400 jobs in the Kyrgyz Republic and Tajikistan, with a projected regional economic impact of more than US$750 million.

In Naryn, Kyrgyz-produced cement was used for concrete, mortar and screeds. Other finishing materials, including wood, reinforcing steel, steel pipes and stone, were purchased from local suppliers in the Kyrgyz Republic and Tajikistan. Local suppliers will also be used at the site in Kazakhstan.

Each campus site generates local employment with positions in facilities management, cleaning, catering, mechanical and electrical systems, maintenance, security, gardening, materials supply, laundry, transportation, leisure and sport facilities, short term accommodation and medical services.

In Naryn and Khorog, local businesses have provided meals at the campus welfare facility, as well as hospitality, transport, cleaning and other services throughout campus construction. UCA is also sustaining and helping to expand the operations of local businesses. Construction companies and contracting businesses founded by alumni of UCA’s School of Professional and Continuing Education, including a general builder and site-works contractor, were engaged at the Naryn site. In Khorog, UCA’s contract with a local stone supplier enabled the company to invest in state-of-the-art equipment for use at the campus site and on future projects in the region.

Enhanced Work Sites

Each UCA campus construction site includes:

- 24-hour security with perimeter fencing and floodlighting
- In-house Health and Safety Consultant assuring international standards
- Welfare facility offering subsidised meals, sanitary and changing facilities, medical services and site induction.
- Office areas and contractor compounds with storage
- Electrical, water, sewage and internet connectivity
- On-site concrete batching plant moved between campus sites
- Resources provided to partner contractors, including sand, stone and UCA-owned equipment
- 50 T mobile cranes, cement mixers and tipper trucks, excavators and Peri formwork transportable between sites

A Foundation for Growth

The welfare facilities in Khorog (left) and Naryn (right), where construction employees enjoy meals prepared in UCA’s kitchen
Engaging Enterprises
Between 20 and 30 works packages are awarded to complete the main construction works; where possible, Central Asian contractors are considered favourably to maximise economic impact to the region. All appointed contractors are contractually obligated to employ at least 50% of their workforce from the local campus community.

Over 40% spent in local contracting and local procurement during Phase I construction.

Enhancing Livelihoods
More than 1,700 construction professionals to be employed at the three UCA campus sites, with 600 in the Kyrgyz Republic and 800 in Tajikistan to date.

Strengthening Institutions
Contractors and local companies derive longer-term benefits from engagement with UCA, including capacity building and training in transferable skills.

Sourcing Materials
Cement, wood, reinforcing steel, steel pipes and stone.

Engaging Services
Facilities management, cleaning, catering, mechanical and electrical systems, maintenance, security, gardening, materials supply, laundry, transportation, leisure and sport facilities, short term accommodation and medical services.
The University of Central Asia

UCA was founded in 2000. The Presidents of Kazakhstan, the Kyrgyz Republic, Tajikistan and His Highness the Aga Khan signed the International Treaty and Charter to establish this secular, private and not-for-profit University. The treaty was ratified by the respective parliaments and registered with the United Nations. The Presidents are the Patrons of UCA and His Highness the Aga Khan is the Chancellor. UCA brings with it the commitment and partnership of the Aga Khan Development Network.

The University’s mission is to promote the social and economic development of Central Asia. It focuses particularly on mountain societies by offering an internationally recognised standard of higher education, and helping the different peoples of the region to preserve and draw upon their rich cultural traditions as assets for the future.