# Terms of reference

# A. Project information

The Ministry of Education and Science (MOES) of the Kyrgyz Republic is implementing the School Education Reform Sector Development Program (project) (2023–2027) financed by the Asian Development Bank (ADB). The aim of the project is to improve the ability of the school education system to prepare graduates with subject knowledge and competencies. The project supports the implementation of the National Education Development Program in the Kyrgyz Republic for the period 2021–2040.

The project will consist of three outcomes: (i) improving the quality and relevance of subject standards, with an emphasis on an interdisciplinary approach; (ii) improving the quality of teaching; and (iii) strengthening the network of innovative schools. As part of the third result, it is planned to renovate the premises and improve the infrastructure of 23 innovative schools and the Kyrgyz Academy of Education (KAE).

# B. Scope of work

The total number of objects is 24 (list in Appendix 1). The task is to:

- 1. Examination, inspection, analysis and assessment of the physical and technical condition.
- 2. Project development.

3. Design and estimate documentation.

The work plan for each facility must include:

- Entrance with a ramp, hall, dining room, library, gym, assembly hall.
- STEM classrooms (computer science, physics, chemistry, biology, geography, labor, mathematics, methodology).
- Internal bathrooms, bathrooms for people with disabilities, as well as outdoor toilets if necessary.
- Compliance with ADB's requirements and policies in the field of environmental protection and other protective measures.

It is necessary to assess the technical condition of schools and perform the following scope of work according to Table 1.

Nº Title of works	Result	Note	Time
1. Survey, inspection and assessment of the physical and technical condition of school buildings and adjacent facilities.	<ul> <li>Technical report on the work performed, including:</li> <li>an explanatory note indicating the current state for each of the 24 facilities;</li> <li>defective report for each of the 24 objects;</li> <li>a general situational plan for each of the 24 facilities;</li> <li>photos for each of the 24 objects (facades, roofs, STEM classrooms, methodological rooms, library, assembly hall, entrance group, hall, gym, physical education room, adjacent rooms to the gym (corridors), inventory room, locker rooms (separately for men and women),</li> </ul>		

№ Title of works Result			Note	Time
2.	Topographic survey of the	<ul> <li>ramps, indoor and outdoor toilets (separately for men and women);</li> <li>bathrooms for people with disabilities, canteens (if available);</li> <li>external and internal communications (water supply and sewerage, heating and ventilation, power supply, the presence of a boiler room and types of fuel used), the availability of video surveillance and fire extinguishing systems.</li> <li>Topographic survey at a scale of 1:500, provide in DWG/DXF/PDF format, as a design</li> </ul>	Where necessary	1 month
	site (24 objects)	topographic survey with contours at intervals of 0.5 m		
3.	Engineering and geological surveys on the site (24 objects)	Geotechnical survey report	Where necessary	
and geological		<ol> <li>The project shall be submitted after the submission of a report on the survey, assessment, examination of the physical and technical condition of school buildings and adjacent structures. The project should be developed on the basis of SNiPs and to improve the learning outcomes of students of educational institutions, as indicated above in this terms of reference. Develop specifications.</li> <li>Development of a design project for outdoor toilets in accordance with SANPIN (23 objects). The number of points should be calculated according to the Sanitary Rules and Regulations and the number of students in each school. Install partitions, tile, install a suspended ceiling, electric lighting. Provide a concrete path for access to outdoor toilets (if necessary).</li> <li>Obtaining all permits and approvals for outdoor toilets from state bodies (provided by local authorities)</li> <li>To develop an automatic fire alarm system and a video surveillance system (if absent or if necessary).</li> <li>Development of a project to ensure access for people with disabilities to schools and bathrooms (installation of ramps, etc.) for 24 facilities. For each object, develop a ramp project individually, based on the height of the basement floor of the building.</li> <li>Development of a project for the need for furniture, computer equipment, kitchen and</li> </ol>	It is necessary to develop and include in the project (24 objects): a) subsection "Power supply system" (in all rooms and premises under consideration); b) subsection "Water supply and sewerage system" (classrooms: physics, chemistry, biology, bathrooms, boys' and girls' work rooms, locker rooms of gyms); c) subsection "Heating, ventilation and air conditioning, heat networks". In the project, work rooms should be located on the 1st floor.	3 months

N⁰	Title of works	Result	Note	Time
		<ul><li>dining room equipment, boiler room, warehouses, etc.</li><li>7. Also prepare the section "Environmental Protection" of the EMP for design and estimate documentation.</li></ul>		
5.	Development of estimate documentation and duration of work (24 objects)	It is necessary to prepare an estimate for the project and a schedule of work on labor costs.	It is necessary to prepare a specification of the scope of work and the duration of work for each of the 24 objects.	
6.	Project development (24 objects)	Based on the data and calculations obtained, it is necessary to develop a detailed project for all 24 facilities. The detailed design must (i) comply with the rules and procedures of technical production (SNiP) and recommendations for the construction company; (ii)Ensure responsible waste management, comply with environmental regulations, and meet gender and social equity standards (including ramps for students with disabilities; safe and separate toilets for girls and boys). (iii)Explanatory note on the work done (reports).	Provide 3 options for graphic (collage) design for 24 objects. Graphic design will have to be applied to STEM classrooms, teaching rooms, libraries, assembly halls, entrance groups, halls, and gyms.	A detailed design should be provided after the technical report.

### Requirements for the report on the work performed on the inspection of schools.

The report should reflect the actual technical condition of the facility, the scope and types of repair and construction work and materials. Attach a photo to the report.

Prepare initial data - floor plans and sections. Initial data should be taken according to the inventory list, technical passport and actual dimensions.

To issue recommendations for the implementation of repair and construction work.

### Requirements for building materials

All building materials used must comply with GOST and requirements for use in school institutions. When using linoleums, use commercial heterogeneous linoleum of 32 and 34 (antislip) classes. In the design of bathrooms, use factory-made plumbing partitions. It is necessary to develop specifications for building materials.

### Requirements for the development of design and estimate documentation (DED)

The project design is developed for the Customer for each object - for a general idea of the future project.

If necessary, the composition of the detailed design can be expanded by the Customer.

The main set of documentation for the development of design and estimate documentation:

- 1. Explanatory note.
- 2. Detailed design according to Table 1 (24 objects).
- 3. Photos and sketch drawings "before" and "after" the development of the project.
- 4. Sections:
- a) Electricity supply (24 facilities);
- b) Internal water supply and sewerage (24 objects);
- c) External water supply and sewerage (24 objects);
- d) Heating and ventilation (24 facilities);
- e) Structural solutions (24 objects).
- f) Architectural part (24 objects)
- 5. List of environmental protection measures (24 facilities).
- 6. Measures to ensure fire safety (24 facilities).
- 7. Measures to ensure access for persons with disabilities (24 facilities).
- Estimate, list of quantities of work and labor costs for repair and construction works (methodology for calculating estimates - according to the methodology of Gosstroy) (24 objects).
- 9. Other documentation in cases provided for by regulatory and technical acts.

### **C.** Compliance Requirements

The company must have an appropriate state license to perform design work of at least the III level of responsibility. The firm must have sufficient staff with appropriate professional qualifications and relevant experience, including design experience comparable in nature, size, and complexity to the current assignment. In its application, the engineering and design firm must provide information confirming the qualifications and experience of employees in the field of inspection, design of buildings, structures and engineering systems.

### Criteria for organization:

- At least 5 years of experience in the field of building design;
- Availability of a license for the development of design and estimate documentation of at least III (third) level of responsibility;
- Availability of 2 similar completed contracts over the past 3 years for the development of design and estimate documentation.
- Provide financial statements for the last 5 years confirming the availability and cash flow.
- Provide a certificate of legal incorporation, Articles of Association of the company, Resolution of incorporation.
- Provide certificates from the Tax Service and the Social Fund about the absence of debts.

### Criteria for personnel, for key employees:

At a minimum, the design consulting firm's team should include the following specialists: For each specialist, it is necessary to provide a resume and relevant qualification certificates:

# - Chief Project Architect/Group Leader (CAP) - 1 unit.

Higher education in the field of architecture and civil engineering;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work. At least 10 years of experience in building design;

Computer skills.

Responsibilities of the Chief Aviation Officer:

- Is responsible for the overall performance of the task for the above facilities;
- When preparing the design, to rely on the equipment supplied to the buildings to be provided by the Client;
- Prepares a specification of the necessary list of materials for repair and construction works in accordance with the technical regulations of the Kyrgyz Republic;
- Prepares design and estimate documentation, including all the necessary elements of design documentation for the successful implementation of repair and construction work;
- Approves the design and estimate documentation of projects in the appropriate way in state bodies if necessary;
- Assists in the preparation of tender documents (drawings, bill of quantities, specification of works, work schedule, necessary equipment);
- Prepares specifications for the provision of energy-efficient repair methods (electricity and heating);
- Coordinates the introduction of changes in works and materials in the course of repair and construction works for compliance with the current construction, technological, fire and sanitary standards in the manner established by the regulatory legal acts of the State Construction Committee of the Kyrgyz Republic.

# - Design engineer – 2 units.

Higher education in the field of industrial and civil construction;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work. At least 8 years of experience in building design;

Computer skills.

# Responsibilities of the Design Engineer:

- Is responsible for the implementation of the structural part for the specified objects;
- Prepares a specification of the necessary list of materials for repair and construction works in accordance with the technical regulations of the Kyrgyz Republic;
- Prepares design and estimate documentation, including all the necessary elements of design documentation for the successful implementation of repair and construction work;
- Coordinates the design and estimate documentation of projects in the appropriate way in state bodies if necessary;
- Coordinates changes in the course of construction and repair work for compliance with the current construction, technological, fire and sanitary standards in the manner established by the regulatory legal acts of the State Construction Committee of the Kyrgyz Republic.

# - Architect (draftsman) - 4 units.

University degree in architecture, engineering, or a related field;

At least 4 years of experience in the preparation of drawings;

Computer skills.

# Responsibilities of an architect (draftsman):

- Prepares drawings using AutoCAD and ArchiCAD programs. Taking into account the requirements of the project.
- Prepares a specification of materials for repair and construction work in accordance with the regulatory legal acts;
- Prepares design and estimate documentation, including all the necessary elements of design documentation for the successful implementation of repair and construction work;

## - Quantity Surveyor – 4 units.

Higher education in the relevant field;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work; Computer skills.

# Responsibilities of the Quantity Surveyor:

• Prepares estimate documentation using the RIC program Taking into account the requirements of the regulatory legal acts of the State Construction Committee.

# - Electrical Networks Engineer (Electrical Networks, SCS, STN) – 4 units.

Higher education in the relevant field;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work.

At least 5 years of experience in the design of electrical networks;

Computer skills.

# **Responsibilities of an Electrical Network Engineer:**

- Identify deficiencies in electrical networks during the inspection of buildings;
- Carry out calculations for the necessary repair or design of new networks, including video surveillance systems and structured cabling networks;
- Prepares specifications of the necessary list of materials and the scope of repair and construction work in accordance with the technical regulations of the Kyrgyz Republic;
- Carry out the design of networks taking into account the needs of the building capacity and the equipment supplied (joint work with the company on the development of technical specifications);
- Pay special attention to the design of fire safety equipment and reliable emergency shutdown of electrical networks;
- Coordinate changes in the course of repair and construction work for compliance with the current construction, technological, fire and sanitary standards in the manner established by the regulatory legal acts of the State Construction Committee of the Kyrgyz Republic.

### - Communications Engineer (Water Supply and Sewerage) – 2 units.

Higher education in the relevant field;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work. At least 5 years of experience in the design of communications;

Computer skills.

### Responsibilities of the Communications Engineer (Water Supply and Sewerage):

- Identify deficiencies in building communications during the inspection of buildings;
- Carry out calculations for the necessary repair or design of new networks;
- Prepare specifications of the required list of materials and the scope of repair and construction work in accordance with the technical regulations of the Kyrgyz Republic;
- Carry out the design of networks taking into account hydraulic calculations;
- Pay special attention to the design of fire safety equipment;
- Coordinate changes in the course of repair and construction work for compliance with the current construction, technological, fire and sanitary standards in the manner established by the regulatory legal acts of the State Construction Committee of the Kyrgyz Republic.

### - Communications Engineer (Heating and Ventilation) – 2 units.

Higher education in the relevant field;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work, Experience in the design of communications for at least 5 years;

Computer skills.

### **Responsibilities of the Communications Engineer (Heating and Ventilation):**

- Identify deficiencies in building communications during the inspection of buildings;
- Carry out calculations for the necessary repair or design of new networks;
- Prepare specifications of the required list of materials and the scope of repair and construction work in accordance with the technical regulations of the Kyrgyz Republic;
- Carry out the design of networks taking into account hydraulic calculations;
- Pay special attention to the design of fire safety equipment;
- Coordinate changes in the course of repair and construction work for compliance with the current construction, technological, fire and sanitary standards in the manner established by the regulatory legal acts of the State Construction Committee of the Kyrgyz Republic.

### Environmental Protection Specialist – 1 unit.

Higher education in the field of ecology, environmental science, environmental engineering or related field;

Availability of the appropriate certificate of the Kyrgyz Republic for the performance of such work.

Work experience: At least 5 years' experience in environmental impact assessment, including monitoring of environmental management plans.

Computer skills knowledge.

### **Responsibilities of an Environmental Protection Specialist:**

- Assist in the conduct of survey of subprojects (schools) and prepare the rapid environmental assessment (REA) Checklist for each school to PIU Environment and Safeguards Specialist;
- Coordinate with the PIU Environment and Safeguards Specialist to ensure potential environmental impacts are identified, management measures are incorporated and budgeted in the design;
- Assess presence of asbestos containing materials (ACMs) and/or hazardous materials on site and in coordination with Environment and Safeguards Specialist, provide inputs to develop specific management plans to be included in the bidding and contract documents;
- Conduct meaningful consultations and engage the stakeholders;

- Based on the results of the technical detailed design of the project, prepare the Initial Environmental Examinations (IEEs) to obtain the relevant permits and clearances per national laws, rules, and regulations;
- Submit the detailed design of the project and the EIS for the state environmental expert's review (SEER) and receives its findings;
- Provide additional information as may be required in the IEEs (if necessary).

# D. Results:

The selected design firm shall develop design and estimate documentation for each facility in accordance with Appendix 1 of this Terms of Reference;

The selected company must provide an explanatory note in three paper copies of the design and estimate documentation and one electronic copy of documents in the following formats for each building of 24 facilities:

- Text attachments: \*.doc, \*.xls, \*.pdf (with the ability to copy the text);
- Graphic applications: drawings, diagrams: \*.dwg, \*.pdf (in color);
- Images, illustrations: \*.pdf, \*.gif, \*.jpeg;
- Estimates must be submitted in the format of a certified program, as well as \*.xls (\*.xlsx). With signatures and seals, duplicated in \*.pdf format;
- The bill of quantities must be submitted in \*.xls (\*.xlsx) and \*.doc (\*.docx) formats, as well as duplicated in \*.pdf format with the signatures of the developers;

Approval of the project in local architectural authorities (outdoor toilets - 23 schools), subject to the use of standard projects that have passed the state examination and adaptation to local soil conditions;

Structural solutions (24 objects) if necessary;

Coordination of the project with local architectural authorities (24 objects) if necessary;

The proposed period for the preparation of a full package of design and estimate documentation by the design organization is no more than **4 months** from the date of signing the contract;

Within a week after signing the contract, provide and agree with the PIU of the Ministry of Education and Science of the Kyrgyz Republic the schedule of all work, in accordance with this term of reference.

### Graph 1. Payment and reporting schedule.

Stages	Outcomes	Number of calendar days	Payment, %
Stage 1	Initial report (inspection of buildings and drawing up defective acts with the participation of the PIU civil engineer)	Within 30 days after signing the contract	30%
Stage 2	Final report (including estimates for the renovation of 12 facilities). Provision of 3 copies in paper form and an electronic copy)	Within 45 days after signing the contract	35%
Stage 3	Final report (including estimates for the renovation of 12 facilities). Provision of 3 copies in paper form and an electronic copy).	Within 45 days after signing the contrac	35%

The project company will prepare reports on the work done to the Project Manager. Reports must be submitted in Russian, as well as in PDF and electronic versions. All prepared design and estimate documents are reviewed and accepted by the Project Manager and the PIU Civil Engineer.

# E. Contribution of the Client and PIU staff

Professional and support staff of the PIU, the Ministry of Education and Science of the Kyrgyz Republic will provide the necessary advice and recommendations during the implementation of the contract.

The client will provide: (i) an approved list of 24 sites (Annex 1) with addresses and contacts of directors (ii) the relevant Order of the Ministry of Education and Science of the Kyrgyz Republic, requiring the full cooperation of the school management.

# List of 23 schools and the Kyrgyz Academy of Education

Nº	Region, district/ City/Villag e	School Name	Full name of the director	Language of instruction	Number of students/ Teachers	Number of schools within the radius 10 km.
	Batken regio					
1	Kyzyl-Kyya	Secondary School No1 named after D.M. Karbyshev	Parieva Inobat Abdirahmanovna (0777-871-416)	Russian	1338 students 54 teachers	5
2	Suluktu	Secondary School No7 named after I. Razzakov	Madmusaeva Gulsunay Karimovna (0774 01 04 24)	Kyrgyz	662 students 43 - Teachers	8
3	Batken district, Karabak village	Secondary school named after B. Narmatov	Sultanov Rakhmanali Sayitkurbanovich (0778-045-978)	Kyrgyz In this case, the	1171 students 71 teachers	3
	Jalal-Abad r					
4	Jalal-Abad	Secondary School No 13 named after R. Azimov	Abidova Zarifa Rezhebaevna (0558 400 780)	Russian/ Kyrgyz/Uzbek	3045 students 121 – teachers	4
5	Kara-Kul	Secondary School No 3 named after M.F. Frunze	Toktosunov Shamshidin Ashirovich (0773-987-712/ 0708 188-082)	Russian/ Kyrgyz	1852 students 86- Teachers	5
6	Kok- Jangak	Secondary school No3 named after T. Satylganova	Toktosunova Gulaysha Abdimitalipovna (0773-610-444)	Kyrgyz.	492 students 27 - teachers	5
7	Tash- Kumyr	Secondary School No11 named after M. Temirbayev	Zholdosheva Nargiza Kochumkulovna (0778-395-722)	Kyrgyz.	675 students 38 - teachers	13
8	Mailuu-Suu	Secondary School No2	Boltabaeva Zhumagul Erkenbaevna (0559- 290-483)	Russian	990 students 47 - teachers	6
9	Nooken District	Secondary school No6 Aral	Shamshiev Kaldar Tursunalievich (0550-790-151)	Russian/Kyrgyz	816 students 50 teachers	3
10	Chatkal district, The village of Zhany- Bazar	Zhanaliev Secondary School	Omorov Zhanybek Narbaevich (0777-226431)	Kyrgyz	453 students 40 teachers	7
	Issyk-Kul re					
11	Balykchy	Gymnasium No4	Abdraimov Nurlan Kutmanovich 0707691400	Russian	1588 students 74 teachers	9
12	Karakol	Gymnasium No 11	Soyokova Gulzat Kudaibergenovna	Russian/Kyrgyz.	2828 students 110 teachers	8

			(0703-620-017)			
13	Issyk-Kul district, Kara-Oi village	High school named after K. Bektenov	Tynaeva Nazgul Asekovna 0709570065	Russian/Kyrgyz.	825 students 55 teachers	6-7
	Naryn regio	n				
14	Naryn	Secondary School No 4 named after E. Ibrayev	Kerimbayeva Aida Abitovna (0708-442-121)	Russian/ Kyrgyz.	969 students 56 teachers	5
15	Ak-Tala	E. Karasartov Secondary School	Abylova Nelly Kamchybekovna (550422484)	Russian/ Kyrgyz.	813 students 82 teachers	6
16	At-Bashi, Acha Kayindy village	Øi-Tersken Secondary School	Abdyldaev Ruslan Toktokadyrovich (0702-970-130)	Russian/ Kyrgyz.	1047 students 73 teachers	7
47	Osh region Kara-Suu	School No 43	Cadultova Farura	Ducaion/	2002 students	11
17	Kara-Suu district, Kyzyl- Kyshtak village	named after Z.M. Babur	Sadykova Feruza Irkinovna (0559 888 496)	Russian/ Uzbek.	106 teachers	11
18	Uzgen	Secondary School No 8 named after Kurmanjan Datka	Moidunova Makhabat Turgunovna (0559 903 470/0772361459)	Russian/ Kyrgyz.	1355 students 75 teachers	7
	Talas regior	<u>1</u>				
19	Bakai-Ata district, Ak- Dobo village	Akçal u.Duishon	Kondubaev Israel Yermagalievich (0779-536-906)	Russian/ Kyrgyz.	1270 students 82 teachers	10
20	Manas district, Kyzyl- Jyldyz village	Secondary school named after M. Rakhmanberdiye v	Suranbayeva Chinara Tabyshevna (0779-536-906)	Russian/ Kyrgyz.	567 students 33 teachers	-
	Chui region					
21	Alamudun district, Grozd village	Grozdnenskaya Secondary School	Noskova Lyudmila Egorovna (0555- 224-078)	Russian	1969 students 56 teachers	5
22	Issyk-Ata district, Novopokro vka village	School No2 named after N.S. Baranov	Turganalieva Dinara Turganalievna (0705 579920)	Russian/ Kyrgyz.	2384 students 112 teachers	5
23	Sokuluk district	Secondary school No3 named after K. Shopokov	Nadezhda Busurmankulova (0550-749-553)	Russian/ Kyrgyz.	1950 students 108 teachers	9
		Academy of Edu				
No	Desile	n district/	Namo	President of t		

Nº	Region, district/ City/Village	Name	President of the KAO
1	Bishkek, Erkindik Avenue, 25	Kyrgyz Academy of Education	Dusheeva Nazira Kubanychbekovna