TERMS OF REFERENCE
for Design Services - Lot No.2

This Terms of Reference establishes the technical, functional and administrative requirements for the preparation of design documentation and cost estimates for the implementation of this project, in accordance with the legislation in force.

1. **General Information:**

a. Project Title:

- Reconstruction with functional reconfiguration of Public Institution “Corjeuti” Theoretical Lyceum
- Reconstruction with functional reconfiguration of Public Institution “Cruglic” Theoretical Lyceum
- Reconstruction with functional reconfiguration of Public Institution “Grigore Vieru” Gymnasium

b. Location:

Briceni Raion, Corjeuți Village, 105 Marcel Răducan Street;
Criuleni Raion Cruglic Village, 46 Ștefan cel Mare și Sfânt Street;
Ialoveni Town, 2B, Chilia Street.

c. Beneficiary: Ministry of Education and Research/ Final Beneficiary – Local Council.

d. Contracting Authority: Public Institution National Office for Infrastructure Development „Moldova-Proiect”.

e. Funding: The Republic of Moldova has received a loan from the Council of Europe Development Bank (CEB) in the amount equivalent to EUR 30 million to cover the costs of the “School Modernization” Project and intends to apply this loan to eligible payments under this contract, in accordance with the provisions of the Framework Loan Agreement, ratified by Law No. 163/2025.

f. Basis for Design: Model School Concept, approved by the Order of the Ministry of Education and Research No. 198, dated 26.02.2024[1] and the Application Guide, approved by Order No. 434 dated 29.03.2024[2].

- Structural Expertise Report No. 42-03-2026 ET – the designer shall use the existing structural technical expertise and implement the measures corresponding to the required level of seismic protection.

[1] https://mecc.gov.md/sites/default/files/anexa_2_omec_198_din_2024_concept_scoala_model.pdf

[2] https://mecc.gov.md/sites/default/files/anexa_1._omec_nr._434_din_29.03.2024_ghid_de_aplicare_si_implementare_a_conceptului_scolii_model.pdf

- Energy Audit Report No. 8/MS – the solutions proposed by the energy audit are mandatory for integration into the design, with the final objective of achieving at least Energy Performance Class B for the building.
- Structural Expertise Report No. 38-03-2026 ET – the designer shall use the existing structural technical expertise and implement the measures corresponding to the required level of seismic protection.
- Energy Audit Report No. 9/MS – the solutions proposed by the energy audit are mandatory for integration into the design, with the final objective of achieving at least Energy Performance Class B for the building.
- Structural Expertise Report No. 35-03-2026 ET – the designer shall use the existing structural technical expertise and implement the measures corresponding to the required level of seismic protection.
- Energy Audit Report No. 4/MS – the solutions proposed by the energy audit are mandatory for integration into the design, with the final objective of achieving at least Energy Performance Class B for the building.

g. Type of Investment: Reconstruction with functional reconfiguration of spaces, energy rehabilitation, rehabilitation of internal and external utility networks of publicly owned assets.

h. Purpose: Functional and energy modernization (in accordance with the Model School Concept/Implementation Guide) of the buildings in order to ensure a safe, efficient and modern learning environment.

i. Description of the premises:

Public Institution „Corjeuți” Theoretical Lyceum, Corjeuti Village
Location Coordinates: Latitude - 48° 13' 30.8388" N Longitude - 27° 2' 28.5972" E Link: https://www.latlong.net/c/?lat=48.225233&long=27.041277
Technical and Structural Characteristics of the Building The institution’s building is a complex composed of two functional blocks: Block A, with a height regime of G+2, and Block B, with a height regime of G, interconnected by a gallery. The total footprint area of the complex is 1,613.6 m². The building includes classrooms, teaching offices, laboratories, technical spaces, sanitary facilities on each level (which currently require major rehabilitation works), and a sports hall. Block A is designated for teaching and administrative activities and includes classrooms, specialized subject rooms, the library, and administrative spaces. Block B accommodates auxiliary and functional spaces, namely the assembly hall, the canteen, and the sports hall. The load-bearing structure of the building is made of limestone masonry, typical for educational buildings constructed during the period of its erection. While it provides satisfactory structural stability, it exhibits an

advanced level of physical and functional wear, requiring major rehabilitation works in order to bring the building in line with current standards of safety, comfort, and energy efficiency.

The foundations are constructed from FS-type prefabricated reinforced concrete blocks, appropriate for the soil conditions and the building's height regime. Visual inspection did not reveal major settlements or structural cracks, indicating satisfactory load-bearing capacity; however, a technical assessment is required to confirm seismic performance.

The floor slabs are made of hollow-core prefabricated reinforced concrete panels, a structurally efficient solution but lacking thermal insulation. Exterior and interior load-bearing walls are constructed from small limestone blocks, a traditional material with good load-bearing capacity but low thermal performance.

The roof is of a timber truss type, covered with corrugated metal sheets mounted on the existing load-bearing structure and equipped with rainwater collection elements. It includes technical rooms intended for the placement of building services.

Floor finishes consist of concrete in technical and circulation areas, timber flooring in some teaching spaces, ceramic tiles in certain access areas and the canteen, and linoleum in the sports hall. Many of these finishes are deteriorated, with worn surfaces that do not comply with modern safety and hygiene requirements. Ceilings are made of prefabricated reinforced concrete slabs, showing cracks and damaged finishes, and require major repair works and full refurbishment of finishes.

The building of P.I. "Corjeuți Theoretical Lyceum" is served by engineering networks that were largely installed at the time of construction or during partial interventions and are currently technically and functionally obsolete.

Water supply is provided from a private borehole via a water tower, while wastewater is discharged into a septic pit. Although these systems are functionally satisfactory, they do not comply with sanitary and environmental requirements and require replacement. The building has an internet connection; however, the internal cabling infrastructure is limited and does not meet the requirements of a modern digital school. The building is not equipped with an automatic fire detection and alarm system, internal fire hydrants, or modern video surveillance systems, resulting in a low level of safety for students and staff.

External site arrangements currently include the area in front of the building, which has been rehabilitated by installing new paving. However, the adjacent territory intended for recreational and sports activities is insufficiently developed and, in some areas, completely absent and in an inadequate condition, limiting the effective use of the institution's outdoor spaces.

Energy Performance of the Building

The building of P.I. "Corjeuți Theoretical Lyceum" exhibits a low level of energy performance and is classified in energy performance class D. During the operational period, maintenance and modernization works have been carried out, including façade rehabilitation, application of thermal insulation, and partial replacement of windows. However, these interventions have been fragmented and do not ensure compliance with current requirements for energy efficiency and indoor comfort.

The exterior walls have been insulated with expanded polystyrene (EPS) with a thickness of 50–80 mm; however, this solution does not comply with NCM regulatory requirements, leading to significant heat losses and the occurrence of condensation and mold in several spaces (classrooms, canteen, sports hall, assembly hall). Reinforced concrete floor slabs are not thermally insulated, resulting in additional energy losses and thermal discomfort, particularly on the upper floors.

Although the roof has been repaired, it lacks an adequate thermal insulation and waterproofing system, which increases energy losses and the risk of water infiltration. The external joinery has been partially replaced with

PVC windows with insulated glazing; however, window sills and proper sealing are missing, reducing the overall thermal efficiency of the system. Most doors are made of PVC but currently show deterioration at the base of the frames, caused by exposure to moisture and intensive use. In addition, some doors are made of timber and are physically and functionally worn, which necessitates their replacement in order to ensure adequate conditions of safety, airtightness, and accessibility.

The heating system is an autonomous gas-fired system; however, the equipment (boilers, radiators, piping) is outdated and inefficient, lacking modern regulation and automation systems. The building’s ventilation system is of a natural type, ensuring air exchange through windows, ventilation grilles, and other construction openings, which results in poor indoor air quality and additional energy losses due to uncontrolled ventilation.

Interior lighting is provided by fluorescent and LED fixtures; however, a relatively large number of incandescent bulbs are still in use. Although the level of illumination is generally satisfactory for routine activities, in some spaces the values recommended by current regulations for educational buildings are not achieved. In several areas, outdated fluorescent and incandescent lamps with low efficiency and increased energy consumption are still in operation.

Overall, while the building structure is stable from a construction standpoint, the building envelope, installations, and energy systems are outdated and non-compliant, resulting in high energy consumption and elevated operating costs.

Public Institution „Cruglic” Theoretical Lyceum, Cruglic Village

Location Coordinates:

Latitude - 47° 13' 14.6244" N

Longitude - 29° 1' 25.6800" E

Link: https://www.latlong.net/c/?lat=47.220729&long=29.023800

Technical and Construction Characteristics of the Building

The load-bearing structure is composed of masonry with a reinforced frame, typical for educational buildings constructed during the period of its development. The foundations are made of prefabricated reinforced concrete elements, appropriate for the soil type and the transmitted loads. Visual assessment indicates a satisfactory condition, with no evident major structural degradation.

The floor slabs are constructed of prefabricated reinforced concrete panels, while the exterior and interior load-bearing walls are made of small limestone masonry blocks, providing good structural capacity but modest thermal performance.

The roof is a pitched timber structure covered with slate sheets, a solution that is structurally functional but offers limited thermal and waterproofing performance. In order to prevent water infiltration and protect the attic spaces from rainwater and snow penetration, repair works to the ridge and gable walls are required. The gallery roof is made of corrugated metal sheets.

Floor finishes consist of timber flooring in some classrooms, linoleum on the first floor, and terrazzo concrete in the corridors. These finishes show significant wear and no longer meet modern requirements for hygiene, safety, and comfort.

Ceilings are finished with washable paint and skim coat, plastic panel cladding in the kitchen, and Armstrong-type suspended ceilings in the assembly hall.

The joinery consists of PVC windows with insulated glazing, installed in 2016.

The building comprises 25 classrooms, 4 specialized laboratories (chemistry, physics, biology, computer science), a library, a sports hall, a canteen, a medical office, and a CREI unit.

Sanitary facilities are limited (two units, for boys and girls) and are insufficient for the number of users.

Engineering installations are largely outdated:

- the electrical system is based on aluminum conductors, with old distribution boards and lack of grounding;
- water supply and sewerage are connected to the centralized municipal networks; however, the internal installations are worn;
- safety systems are only partially functional (3 external exits and 2 internal exits, partial signage, absence of fire hydrants).

The adjacent territory includes a large football field and green areas; however, these are undeveloped and insufficiently adapted to modern educational requirements. Access routes are partially paved, and the site is sloped, without a drainage system.

Energy Performance of the Building

The building of P.I. “Cruglic” Theoretical Lyceum demonstrates a low level of energy performance and is classified in energy performance class D. During the operational period, maintenance and modernization works have been carried out, namely:

- Exterior walls have already been thermally insulated with 100 mm expanded polystyrene (EPS).
- Roofs are insulated with 100 mm mineral wool. This insulation thickness does not ensure compliance with the normative heat loss parameters stipulated by NCM M01.01.2025. Additionally, deterioration of the roof ridge and gable walls leads to moisture penetration into the thermal insulation and timber structures, accelerating their degradation.
- PVC windows with insulated glazing, although relatively recent, are insufficient to ensure overall building airtightness due to uneven installation and the lack of modernization of external doors.
- The heating system is autonomous and natural-gas-fired, consisting of three boilers (two wall-mounted and one floor-mounted), modernized in 2020.
- The building lacks a mechanical ventilation system; air exchange is achieved solely through natural ventilation, resulting in additional energy losses and poor indoor air quality. Existing ventilation ducts are clogged and non-functional.
- Lighting is provided approximately 70% by fluorescent fixtures and 30% by LED fixtures, with a significant share of outdated luminaires characterized by high energy consumption and low efficiency.
- Under these conditions, the building records high energy consumption and disproportionate operating costs relative to the level of comfort provided.
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Public Institution „Grigore Vieru” Gymnasium, Ialoveni Town
Location Coordinates:

Latitude - 46° 56' 13.1676" N

Longitude - 28° 47' 7.7388" E

Link: https://www.latlong.net/c/?lat=46.936991&long=28.785483

Technical and Construction Characteristics of the Building

The building has a reinforced concrete frame structural system, with exterior walls made of prefabricated lightweight aggregate concrete (keramzit concrete) panels, a solution widely used for educational buildings constructed during that period. The foundations are made of prefabricated reinforced concrete blocks (FS type), and the floor slabs consist of prefabricated hollow-core reinforced concrete panels. Visual inspection indicates a satisfactory structural condition, with no major degradation observed; the building is provided with functional seismic joints between the wings.

The floor slabs are made of prefabricated reinforced concrete panels, while the exterior walls are constructed of brick masonry. From a structural standpoint, the building is stable; however, the thermal performance of the envelope elements is low.

The roofs are timber-framed pitched structures, with different construction solutions for the two blocks:

- Block A is covered with metal tiles, renovated in 2003, and is in relatively good condition;
- Block B is covered with slate sheets, which are in unsatisfactory condition and require urgent repair or replacement works.

Floor finishes consist of polished cyclopean concrete in corridors and the canteen, wooden planks in the sports hall, linoleum in classrooms (in an advanced state of deterioration), and ceramic tiles in sanitary facilities. The existing finishes are worn and do not comply with current hygiene and safety requirements.

Ceilings are finished with trowelled plaster and paint, showing wear and localized deterioration.

The external joinery is mostly composed of PVC windows with insulated glazing, while the main entrance doors are made of PVC. Internally, some doors are made of wood or metal and are physically and morally worn.

Engineering installations are largely outdated. Interior lighting is predominantly provided by fluorescent fixtures, with isolated use of incandescent bulbs characterized by low energy efficiency. Electrical networks operate at voltages of 220 V and 380 V (thermal plant), but require comprehensive modernization.

Thermal energy is supplied by the building’s own boiler house, located on the premises and equipped with two gas-fired boilers. The heat distribution system consists of old-type cast-iron radiators, in a single-pipe configuration and without regulation capability; in some rooms, radiators are damaged.

Domestic hot water is prepared using electric boilers installed in various rooms. Water supply and sewerage systems are connected to centralized networks; however, internal installations made of steel and cast-iron pipes are partially replaced but largely worn.

Ventilation within the building is natural; however, not all ventilation ducts function properly. Safety systems are insufficient, with only video surveillance cameras installed (one indoor and three outdoor), and no automatic fire detection and alarm system.

The adjacent territory does not include properly arranged sports grounds. There is a park and green areas that are poorly developed; access roads and sidewalks are asphalted but in a degraded condition. Rainwater drainage occurs naturally, making the installation of drainage channels and proper slopes necessary.

Energy Performance of the Building

Grigorie Vieru Gymnasium exhibits a low level of energy performance and is preliminarily classified in energy performance class E, mainly due to the lack of integrated energy efficiency measures and the advanced wear of the building envelope and technical systems.

The exterior walls made of prefabricated lightweight aggregate concrete panels are not thermally insulated, and the joints between panels require lining and sealing. This results in significant thermal energy losses and indoor thermal discomfort. Floor slabs above the basement and above the top floor are not thermally insulated.

The roofs do not provide adequate thermal protection, particularly in the case of Block B, where the deteriorated slate roofing facilitates water infiltration and heat losses.

Existing PVC windows partially improve energy performance; however, overall building airtightness is compromised by outdated doors and the absence of a comprehensive rehabilitation approach.

The building is supplied with thermal energy from its own boiler house, whose capacity is sufficient to serve the entire building. However, in order to ensure efficient thermal energy consumption, it is proposed to replace the internal heat distribution system with a horizontal distribution system equipped with adjustable thermostatic valves.

The ventilation system is predominantly natural and largely non-functional in classrooms and sanitary facilities. Forced ventilation systems in the sports hall and canteen are in unsatisfactory condition. The lack of efficient mechanical ventilation leads to poor indoor air quality and additional energy losses.

Under these conditions, the building records high energy consumption and elevated operating costs. Therefore, comprehensive energy rehabilitation is justified, including thermal insulation of the building envelope, modernization of heating, ventilation, and lighting systems, rehabilitation of electrical installations, and enhancement of safety and accessibility, in line with the model school concept.

2. Design Assignment:

The development of the design and cost estimate documentation for the reconstruction, modernization and arrangement of the educational institution shall be carried out in strict compliance with the national regulatory framework in force, the Model School Concept of the Ministry of Education and Research and the Implementation Guide, as well as the relevant technical regulations (including Moldovan Construction Regulations A.07.02.2012)

The project shall ensure the transformation of the institution into a modern learning environment that supports independent and active student development by integrating the mental, social and physical environments, in line with the pedagogical principles of the Model School.

The Service Provider shall prepare a dismantling, handling and transportation plan for asbestos roofing materials in accordance with legislation on hazardous waste, subject to the approval by the Environmental Agency.

The design shall include a stormwater management system based on sustainable principles (permeable surfaces, infiltration channels, retention basins, reuse for irrigation), sized for rainfall events with a 10% exceedance probability.

The Service Provider shall verify the availability of connection capacities to existing utility networks (water, sewerage, electricity, gas, telecommunications) and propose solutions for upgrading or replacing internal risers and connection points, based on calculated demand.

The Service Provider shall identify and propose technically and financially optimal solutions.

2.1 Fundamental technical requirements:

During the development of the technical documentation (drawings and explanatory report), due consideration shall be given to the Model School Concept and the Implementation Guide of the Ministry of Education and Research.

In designing the school space, it shall be taken into account that a modern learning environment—being a combination of mental, social, and physical environments—supports the development of students into independent and active learners. A well-designed school environment fosters a modern approach to learning. The implementation of innovative and experimental ideas is encouraged.

Ensuring the quality level of the design and compliance with the requirements set out in the applicable normative documents shall be the responsibility of the Service Provider. The proposed solutions shall aim at transforming the existing infrastructure into a sustainable, safe, and digitalised learning ecosystem.

In order to achieve construction works of appropriate quality, it is mandatory to comply with and maintain, throughout the entire service life of the building, the fundamental requirements set out in Article 335 of the Urban Planning and Construction Code No. 434/2023, as follows:

1. Structural integrity of buildings;
2. Fire safety of buildings;
3. Protection of workers and building users against adverse effects on hygiene and health conditions caused by construction works;
4. Protection of workers and building users against physical injuries caused by construction works;
5. Sound insulation and acoustic performance of buildings;
6. Energy efficiency and thermal performance of buildings;
7. Prevention of hazardous emissions into the environment caused by construction works;
8. Sustainable use of natural resources incorporated in construction works.

The architectural concept, the design brief, as well as each section of the design documentation shall be submitted for prior review and approval by the Contracting Authority, including the Beneficiary, before verification by certified verifiers.

The Service Provider shall be obliged to integrate all comments and requests raised by the Contracting Authority during the prior review process, up to the final approval. The integration of the Contracting Authority’s comments is included within the scope of the present public procurement procedure and shall not be subject to additional remuneration.

Within the timeframe established by the Contracting Authority, the Service Provider shall be obliged to correct, at no additional cost:

- errors;
- omissions;
- inconsistencies;
- inconsistencies between written documentation and drawings, the cost estimates documentation, or the actual site conditions.

Monitoring of the progress of the design services shall take place on a weekly/monthly basis through joint meetings between the Parties, held online or in person, subject to prior coordination between the Parties, in accordance with the service delivery schedule.

The Service Provider shall submit Progress Reports on the execution of the service contract once every two weeks.

2.2 General Requirements and Regulatory Compliance

During the preparation of the design phases, the commercial offer, and the development of the environmental protection and accessibility components, the Service Provider shall be guided by the following regulatory acts (the list is not exhaustive):

- Urban Planning and Construction Code No. 423/2023;

- Law No. 139/2018 on Energy Efficiency;
- Law No. 10/2016 on the Promotion of the Use of Energy from Renewable Sources;
- Law No. 128/2014 on the Energy Performance of Buildings;
- Government Decision No. 361/1996 on Quality Assurance in Construction;
- Government Decision No. 896 of 21.07.2016 approving the Regulation on the Procedure for Certification of the Energy Performance of Buildings and Building Units;
- Sanitary Regulations for Primary, Lower and Upper Secondary, and Vocational Education Institutions.

When preparing the technical design documentation and the cost estimates, the applicable Construction Norms and Standards in force shall be observed.

Reference Code	**Title**
NCM A.07.02.2012	Procedure for the preparation, review, approval and framework content of design documentation for construction works
NCM C.01.03:2017	Design of buildings for general education
NCM C.01.12:2018	Public buildings and structures
NCM C.01.06-2014	General safety requirements for construction objects used by and accessible to persons with disabilities
NCM M.01.03:2016	Energy efficiency of social and cultural buildings
NCM M.01.01:2025	Minimum energy performance requirements for buildings
NCM M.01.02:2025	Methodology for calculating the energy performance of buildings
NCM M.01.04:2016	Methodology for calculating cost-optimal levels of minimum energy performance requirements for buildings and their elements
NCM E.04.01:2017	Protection against environmental actions. Thermal protection of buildings
NCM G.01.02:2015	Design and installation of electrical installations in residential and social buildings
NCM A.09.02-2005	Technical maintenance, repair and reconstruction of residential, communal and social-cultural buildings
NCM B.01.05:2019	Urban planning. Systematization and development of urban and rural settlements
NCM C.01.04-2005	Administrative buildings. Design standards
NCM C.04.02:2017	Natural and artificial lighting
NCM E.03.01-2005	Fire protection of buildings and installations. Terminology
NCM L.02.06-2012	Cost estimation standards for the execution of construction and installation works during cold weather conditions
NCM E.02.02:2016	Reliability of structural elements and foundation soils. Basic principles
NCM E.03.02:2014	Fire protection of buildings and installations
NCM E.03.05-2004	Automatic fire extinguishing and fire alarm systems. Design standard
NCM G.03.03:2015	Internal water supply and sewerage installations
NCM G.03.02-2015	External sewerage networks and installations
NCM G.04.10:2015	Boiler plants
NCM G.04.07:2014	District heating networks. Heating, ventilation and air-conditioning installations
NCM G.04.05:2016	Heating, ventilation and air-conditioning installations. Autonomous heat supply sources
NCM A.07.06:2016	Structure and content of the “Environmental Protection” section in design documentation
NCM E.01.02:2019	Actions on structures. Regulation on establishing importance categories of buildings
NCM A.06.01-2006	Technical protection of territories, buildings and structures against hazardous geological processes. General data

NCM B.01.02:2016	Territorial and settlement planning. Instructions on the content, methodological principles for preparation, review and approval of urban planning and territorial development documentation
NCM E.01.03-2005	Instructions for identifying settlements affected by hazardous geological processes
NCM G.02.01:2017	Electrical, automation, signalization and telecommunications installations. Electronic communications networks, automation and signalization installations for buildings and structures. Basic provisions for design and installation
NCM E.03.03:2018	Fire safety. Fire detection and alarm systems
NCM G.01.03:2016	Electrical installations. Electrotechnical devices
NCM G.03.01:2017	Water supply and sewerage installations and networks. Small-capacity municipal wastewater treatment plants
NCM B.01.06:2019	Standards regarding the framework structure of the “Environmental Protection” section within urban planning documentation

When preparing the technical project documentation and the cost estimates, the following Construction Codes of Practice in force will be taken into account:

Reference Code	Title
CP C.01.11:2018	Public buildings and structures accessible to persons with disabilities. Design rules
CP C.04.04-2012	Design of emergency lighting systems in buildings and structures
CP C.01.09:2017	Open-plan structures for physical culture and sports
CP L.01.01-2012	Instructions for the preparation of cost estimates for construction and installation works using the resource method
CP L.01.02-2012	Instructions for determining estimated costs related to wages in construction
CP L.01.03-2012	Instructions on the calculation of overhead costs when determining the value of construction projects
CP L.01.04-2012	Instructions for determining estimated costs for the operation of construction equipment
CP L.01.05-2012	Instructions for determining the estimated profit when forming prices for construction output
CP L.01.13:2015	Methodological guide on monitoring and calculating average prices of construction materials
CP G.03.08-2020	Design and construction of external potable water supply systems with a capacity below 200 m³/day, serving up to 3,000 inhabitants
CP E.04.05-2017	Protection against environmental actions. Design of thermal protection of buildings
CP G.04.01-2002	Energy performance certificate of the building
CP M.01.02:2025	Thermal protection of civil and public buildings. Energy performance indicators
CP E.01.04:2019	Assessment of the level of seismic protection of existing buildings
CP E.03.01:2019	Fire safety. Ensuring the fire resistance of structures
CP E.03.02:2018	Fire safety. Methodology for preparing the design section “Measures to ensure fire safety and to carry out the technical expertise (fire safety audit) of the protected object”
CP G.03.07:2016	Natural biological treatment systems for municipal wastewater using planted macrofite filters (phytoremediation filters)
CP C.01.02:2018	Civil buildings. Buildings and structures. General design provisions ensuring accessibility for persons with disabilities
CP C.01.10:2018	Civil buildings. Living environment with systematised elements accessible to persons with disabilities. Design rules
CP C.01.13:2018	Civil buildings. Urban environment. Design rules accessible to persons with disabilities

CP G.04.11:2013	Heating, ventilation and air-conditioning installations. “Methodology for calculating heat losses, unrecorded volumes of domestic hot water and hot water losses in municipal domestic hot water supply systems” – Part 1: “Calculation of losses and unrecorded volumes of domestic hot water in municipal domestic hot water supply systems”

2.3. Interior Space Planning

The design of interior spaces shall focus on flexibility, inclusiveness and modern pedagogy, in accordance with the Model School Implementation Guide.

Classrooms:

Replanning of teaching spaces in compliance with the standards set out in the Model School Concept; standards shall be applied by education level (primary, lower secondary and upper secondary), in accordance with Chapters 3 and 4 of the Guide.

The maximum number of students per classroom shall be determined according to the intended use, applying the standards by education level (primary, lower secondary and upper secondary), in accordance with Chapters 3 and 4 of the Guide.

Modular and flexible furniture allowing for various layouts (individual, group work, circle).

Mandatory natural lighting for all spaces used on a daily basis.

Provision of technology (data points, interactive board, audio system).

Specialized Spaces: (Chapter 4 of the Guide)

Design of rooms for: technological education, inclusion, music (with stage and instrument storage), art, choreography, robotics, makerspaces (3D printers, tools), and digital laboratories.

Science laboratories (physics, chemistry, biology) equipped in accordance with safety standards and fitted for practical experiments (sinks, dedicated ventilation, power outlets).

A modern library transformed into a resource center (individual and group study areas, access to technology).

Common and Social Spaces: (Chapter 4 of the Guide)

Assembly hall / multifunctional hall: equipped with modular furniture, mobile stage, Wi-Fi network, audio-video system and appropriate acoustic treatment.

Corridors and halls: arranged as rest areas, informal learning, reading and socializing zones, with comfortable furniture.

Canteen: treated as an additional learning space, with good connectivity and varied furniture.

Teachers’ room: rest and working space, divided into zones (reception, work, relaxation with kitchenette), digitally equipped and accessible.

Student Council room: well connected to the common area, separate from the administration.

Sanitary Facilities:

Modernization of all sanitary blocks (WC, washbasins, showers) and changing rooms.

Adapted for users of different ages and heights, including persons with reduced mobility.

Provision of menstrual hygiene cabins and hygienic showers (in proximity to upper secondary classrooms).

Accessible to persons with disabilities (no thresholds, WC fixtures installed at a height of 0.45–0.60 m, adequate maneuvering space).

Universal Accessibility:

Step-free entrances, ramps, lifts (where applicable), and accessible sanitary facilities in accordance with CP C.01.11:2018.

2.4. Energy Efficiency Technologies

The Service Provider is obliged to implement the energy efficiency measures established on the basis of the Energy Audit Report prepared for the existing building.

The technical solutions identified in the audit shall be mandatorily incorporated into the design documentation; the building shall achieve at least energy efficiency class B.

Building Envelope:

Thermal insulation of façades using insulation materials (thickness determined based on thermal calculations and the energy audit).

Thermal insulation of the floor slab above the basement and of the attic/roof.

Replacement of external joinery (aluminum doors with thermal break, high-performance windows – minimum triple glazing or equivalent).

HVAC Systems (Heating, Ventilation, Air Conditioning):

Rehabilitation or replacement of the heating system to ensure maximum efficiency (high-efficiency boilers, heat pumps, etc., in accordance with the audit).

Installation of mechanical ventilation systems with heat recovery in classrooms and crowded spaces.

Installation of heating emitters equipped with thermostats and control valves.

Lighting:

Interior and exterior LED lighting systems.

Use of motion and presence sensors in common and outdoor areas.

Renewable Energy:

Installation of photovoltaic panels on the roof (where structurally feasible and in accordance with the audit) for on-site electricity generation.

Use of renewable energy sources for domestic hot water preparation (solar thermal panels), where applicable.

Automation:

Automation and control systems for optimizing energy consumption (climate control, lighting).

2.5. Development of the Adjacent Areas

The development of the adjacent areas shall be designed as an extension of the learning space, forming a coherent formal and conceptual whole with the building, in accordance with the provisions of the Model School Concept Application Guide.

Sports Areas:

Open-type multifunctional sports center (in accordance with CP C.01.09:2017), football field with running tracks, basketball/volleyball courts, and fitness (work-out) areas.

Ancillary facilities for changing rooms and sanitary units in proximity to sports fields.

Sports field lighting in two phases (security and sports activity).

Green and Recreational Areas:

Green spaces (minimum 50% of the site area, in accordance with sanitary standards), walkways, benches, gazebos (capacity 25–30 persons) for outdoor classes.

Differentiated recreation areas (primary, lower secondary, upper secondary, teachers).

Open-air theatre (reconstruction/modernization of an existing facility or new construction).

Outdoor Learning:

Environmental research stations (digital greenhouse, composters, weather station, garden beds).

Digital greenhouse for biology lessons (connected to utilities, with storage and working spaces).

Paths and movement zones (balance, turning).

Access and Circulation:

Safe access routes for pedestrians and bicycles (covered bicycle/scooter parking near the entrance).

Car parking planned so as not to intersect key pedestrian routes and designed to be discreet (visually screened).

Universal (barrier-free) access within the site and buildings.

Fencing:

No solid or massive fencing shall be designed. Where necessary, the existing fence shall be repaired or green fencing shall be provided (minimum height 1.2 m–1.5 m).

Ceremonial square at the main entrance (with flagpoles).

Outdoor Lighting:

LED street lighting network with photovoltaic elements and motion sensors for the perimeter.

Lighting simulation software to be used for the selection of lighting poles and luminaires.

3. Structure of the Design Documentation

The ***framework of the design and cost estimate documentation*** shall be submitted complete, in accordance with the national legal framework, and shall be divided into separate sections, buildings and site areas (prepared in the Romanian language).

Thus, each section, building and site area shall include:

Explanatory Report, including the *Environmental Protection section and Accessibility for persons with special needs*;

Master Plan (MP) (*including vertical planning and the stormwater collection and drainage system);*

Construction Works Organization (CWO);

Drainage Network (DN) / Stormwater Sewerage;

Landscape Design;

Architectural Solutions (AS);

Interior Design (ID);

Reinforced Concrete Structures (RCS);

Metal Structures (MS);

Demolition and Dismantling Works (DW);

Building Elements (BE);

Anti-corrosion Protection of Structures (ACPS);

Thermo-mechanical Solutions (TMS);

Heating, Ventilation and Air Conditioning (HVAC);

Internal Water Supply and Sewerage Networks (IWSS);

External Water Supply and Sewerage Networks (EWSS);

Heating Networks (internal and external) (HN), including the Individual Heating Substation (IHS);

Thermal Insulation (TI);

Automation (A), including:

- Automation of Technological Processes (ATP);
- Automation of Heating, Ventilation and Air Conditioning (AHVAC), including Smoke Control Systems (SCS);
- Automation of Internal Water Supply and Sewerage Networks (AIWSS);
- Automation of Air Supply (AAS);
- Automation of Heat Supply (AHS);
- Electrical Automation (EA);
- Automation of Electricity Supply (AES);
- Automation of Electronic Communications Networks (AECN);

Outdoor Electric Lighting (EEL);

Interior Electric Lighting (IEL);

Power Electrical Equipment (PEE);

Electricity Supply (ES);

Electricity Supply. Electrical Substations (ESS);

Lightning Protection (LP);

Telephone and Signalling Communications (TSC);

External Telephone and Signalling Communications (ETSC);
Automated Control Systems (ACS);
Fire and Security Alarm Systems (FSAS);
Fire Alarm Systems (FAS);
Automatic Intrusion Alarm Systems (AIAS);
Fire Safety Assurance Measures (FSAM);
External Automation Networks (EAN);
External Electricity Supply Networks (EESN);
Internal Electricity Supply Networks (IESN);
Electronic Communications Networks (ECN) (wired internet, Wi-Fi, bell and central radio system, video surveillance, interior and exterior electric lighting);
Equipment Specifications (ESp);
Technological / functional processes for the canteen, sports hall, laboratories and other specialized spaces;

Cost Estimates:
General and local cost estimates; Forms 1, 3, 5, 7, including the detailed form (1d);
Separate cost estimates for energy efficiency measures;
Verification Report / Verification Approval of the execution design, by separate sections;
Verification Report / Verification Approval of the cost estimate documentation.

Approvals and Permits: Environmental, public health, fire and rescue services, public utility networks (electricity, telecommunications, water supply, sewerage, gas, etc.), Police Inspectorate (where applicable).

The Service Provider shall be responsible for obtaining all required approvals on behalf of and based on the mandate issued by the Beneficiary.

Upon finalization of the Design Brief, the specific sections of the design documentation required for execution shall be determined and approved. At the same time, the maximum admissible budget for the cost estimates of construction works shall be established.

4. Deliverables shall be structured as follows:

No.	Deliverables Structure	Financial Share of the Offer (%)	Implementation Deadline
1	Architectural concept of the project approved by the Ministry of Education and Research (including 3D visualizations)	10	
2	Technical approvals / Permits / Urban Planning Certificate for design	5	

3	Project concept presentation sessions for final beneficiaries (students, teachers, local administration, Ministry of Education and Research) and integration of feedback into the concept (minimum 2 sessions per school)	5	
4	As-built survey plans	5	
5	Topographical and geodetic surveys Technical and geological investigations	5	
6	Design Brief approved by ONDIMP and the Ministry of Education and Research	10	
7	Master Plan approved by the Ministry of Education and Research	5	
8	Technical design documentation completed at 100% (internal verification)	10	
9	Environmental protection documentation, including construction waste management and separate management of hazardous waste	5	
10	Technical design documentation verified by certified project verifiers and coordinated with the competent authorities	25	
11	Cost estimates verified by certified verifiers	10	
12	Technical assistance during the public procurement process for construction works (clarifications for bidders, additional information regarding the design documentation, and other activities related to the procurement process)	5	

The financial proposal will reflect the cost of services per deliverable
The execution schedule will reflect the execution time per deliverable.

5. The documentation referred to above shall be submitted in the following format:

a. Hard copy: 3 original copies, 2 duplicate copies; + Digital format: DWG, PDF, Excel, Word, as applicable (with the exception of approvals obtained from public authorities).
b. Handover–acceptance certificate for each deliverable, within the timeframe stipulated in the Technical Offer
c. The documentation prepared shall become the property of the Contracting Authority, including all related copyright and intellectual property rights.

Implementation period: 7–10 months from the date of registration of the contract with the **State Treasury**.

Director a.i. **Iunona LUNGUL**