
ANNEX 1a: TECHNICAL SPECIFICATIONS AND REQUIREMENTS**LOT 1****Drafting the detailed project execution design for: Upgrading local infrastructure for business development in Manoilești commune, Ungheni rayon: Major repairs of the local road for a segment of 1.4 km in Mănoilești village, Ungheni rayon.****A. Context.**

The EU4Moldova: Focal Regions Programme supports the strengthening of economic, territorial and social cohesion in the Republic of Moldova by facilitating sustainable and inclusive local social-economic growth and improving the standards of living of the citizens from the two focal regions: Ungheni and Cahul municipalities and the neighboring localities. The Programme will support the two regions through: making governance more efficient – improving quality of services and necessary infrastructure; incentivizing private sector – increasing investments, improving local economy and creating new jobs; encouraging participatory democracy – involving citizens in democratic governance processes and enhancing their capacities to claim their rights.

The Programme aims to achieve the following objectives: (I) To strengthen transparency, accountability of local public authorities and people's participation in local governance processes in the focal regions; (II) To improve citizens' access to quality public services and utilities in the pilot focal regions; (III) To create employment opportunities for men and women in the focal regions and improve the attractiveness of the pilot regions for investors and entrepreneurs; (IV) To promote the smart specialization of the economy of the focal regions through the development of the clustering and value chain approach in key economic sectors.

As a result of Programme implementation, the institutional capacities of local public authorities will increase and get consolidated to support the fulfilment of the integrated and environmentally-mainstreamed local social-economic development strategy (e.g.: CSOs, private sector, etc.), and the planning and monitoring of the social-economic development strategy's implementation will become wider. Citizens will benefit from increased quality, availability and performance of local public services and utilities, including the ones meant for women. Favorable conditions will be created for attracting investments, creating working places and fostering local and social entrepreneurship. The economic performance will also increase in the focal regions as a result of clusters' and specialized zones' creation, according to the smart specialization of the economy.

Citizens and communities from Ungheni and Cahul regions, local public authorities and civil society organizations will be the final beneficiaries of this Programme.

B. Contract objective.

The general objective of the contract is to perform professional works for developing, endorsing and approving the project execution design for "Major repairs of the local road for a segment of 1,4 km in Manoilești commune, Ungheni rayon", with a focus on drafting the complete package of project documentation and estimating the costs, as well as developing the necessary tender/construction documentation for implementing the respective project. The works under this project will be carried out in 2 stages:

Stage 1 - Development and approval of the design sketch with the participation of the Beneficiary, Investor, Chief-Architect of Ungheni Rayon Council.

Composition of the design sketch:

1. General Plan, Sc 1:500

Stage 2 - Development of the project execution design, which will include all the compartments envisaged in the normative NCM A. 07.02-2012 "Procedure for drafting, endorsing, approving and the frame-content of construction project documentation. Requirements and main provisions". The project for major repairs of the local road for a segment of 1.4 km in Manoilești commune, Ungheni rayon will have the following compartments:

1. General Plan;
2. Organization of construction works;
3. General explicative memo;
4. Architectural-building solutions;
5. Technical equipment and networks;
6. Environment protection;
7. Estimate documentation and Lists of quantities of works;
8. Basic requirements for operation.

The project execution documentation will provide for the set of works to be performed for undertaken major repairs of the local road for a segment of 1,4 km in Mănoilești commune, Ungheni rayon, and namely:

- Repairing 0,505 km of local road, segment between Florilor str. and Ion Creangă str. using asphalt concrete paving
- Repairing 0,895 km of local road, segment between Ion Creangă str. and Vasile Alexandri str. using crushed stone paving
- Installing 9 road signs
- Applying 74 m² of road marking
- Executing the system for rainwater drainage on a length of 472,5 m adjacent to the road for repairing
- Equipping an innovation space with 2 benches endowed with electronic charging devices, a LED screen for business and tourism promotion and a video surveillance system.

The design services will identify and provide the best opportunities/options for the use, operation and sustainable functioning of area adjacent to the designed road, suggesting modern, sustainable and environmentally friendly materials, according to the national and international standards in the respective area.

C. Requirements for project documentation content.

The content of the project documentation will be established in line with the national construction norms: NCM A.07.02-2012 "Procedure for drafting, endorsing, approving and the frame-content of construction project documentation. Requirements and main provisions".

The selected Contractor shall provide its services for developing clear and complete project documentation, including but not limiting itself to the following:

1. General Plan:

This compartment should cover:

- a) In the descriptive part – brief characteristic of the respective area, solutions and indicators of the General Plan, including the territory zoning, main systematization solutions, technical preparing and equipping of the territory to ensure access for persons with disabilities;
- b) In the drawing part – plans of the routes with longitudinal and transversal profiles, scheme of the General Plan indicating the existing and designed buildings and constructions, environmental protection objectives, landscaping and creation of green spaces, basic solutions for locating the utility networks on the respective territory and transport communications (centralized plan), planimetric elevations of the territory.

2. Organization of construction works:

Composition, volume and content of the project documentation in this compartment shall be established in line with the provisions of national construction standards in force, taking into account the terms and requirements mentioned in the design technical theme.

3. General explicative memo:

This compartment should contain:

- a) General data for the project;
- b) Brief description of zone location;
- c) Constructive solutions and their reasoning;
- d) Road traffic safety and organization;
- e) Working conditions for people with mobility impairments;
- f) Environment protection;
- g) Social-economic influence;
- h) Operation and maintenance conditions;
- i) Technical norms and documentation of reference.

4. Architectural – building solutions:

This compartment should contain:

- a) Data on technical surveying, geological prospecting, hydrological conditions (including information on field seismicity);
- b) Solutions and basic indicators regarding the general plan, territory technical preparing works, security against subsidence and landslides, landscaping works;
- c) Reasoning the architectural-urbanistic solutions, their compliance with the architectural intentions and functional destination depending on urbanistic requirements;
- d) Solutions for protecting architectural, historical and cultural monuments;

- e) Provisions for planimetric, volumetric and building solutions' compliance with the technical requirements and terms set by the Beneficiary;
- f) Solutions for protection of building elements against corrosion;
- g) Data on ensuring comfort for commune inhabitants;
- h) Seismic protection measures and measures of protection against landslides;

5. Technical equipment and networks:

This compartment should contain the following sub-compartments:

- a) Power supply systems and organization of outdoor lighting (extension of the network);
- b) Rainwater drainage systems.

6. Environment protection:

This compartment is developed in line with the state standard requirements, as well as the normative documents approved within the central administrative body specialized in environment protection.

7. Estimate documentation and Lists of quantities of works:

This compartment should contain the estimate documentation concluded in line with the provisions set in the norm NCM L 01.01-2012 "Rules for determining the value of construction sites" and CP L 01.01 – 2012 "Instructions on concluding the estimated for building-assembling works based on the resource method". The estimate documentation will contain as well the full list of all the works with adequate description of every item. The quantities for all the works shall be based on real calculations and not estimations. All the lists with quantities of works and estimates shall be submitted in spreadsheet format (Form no. 1, Form no. 3, Form no. 5 and Form no. 7). The cost estimates shall take into account the real labor cost, real cost for necessary materials and the costs for operation of machines and mechanisms, based on the current prices available on the local market, which will not be under the minimum established by the national legislation.

8. Basic requirements for operation:

These compartments shall be developed in line with the requirements set in the project execution design.

The integral set of project documentation shall be submitted to the Investor in 4 copies, including 1 electronic copy and 3 hardcopy copies.

Requirements for drawn items: complete and detailed construction drawings (graphic form) for all the works with sufficient details to organize the tender, for contractual and building purposes. All the drawings shall be submitted in electronic format (PDF) and corresponding paper format. All the drawings presenting adjusted technical solutions (technical drawings, schemes, plans and other graphic documentation) should be clear, correct and exact. Symbols and abbreviations shall be defined in the legend.

Requirements for technical specifications: complete and present-day technical specifications in line with the best current practices. The general and specific technical specifications for all materials, devices and equipment will be concluded based on some standards accepted at the national and international levels and sufficient for procurement, installation and construction works.

Important: Documents, drawings and specifications shall be sufficiently detailed to facilitate the initiation of works without the need of some on-site instructions, selection of materials, assembling of constructions, placement or localization of elements or characteristics.

The designs shall comply with the provisions of the RM Law 721 of 02.02.1996 (with subsequent supplements and amendments) on quality in constructions, norms and regulations, state standards and specifications in the area of constructions, local regulations in constructions and shall ensure:

1. Construction resistance and stability;
2. Safety in operation;
3. Anti-fire safety;
4. Hygiene, people health, environment recovery and protection;
5. Thermal insulation and waterproof, and energy saving;
6. Protection against noise.

D. Key tasks and expected results:

All over the period of contract execution, the Contractor shall be responsible for carrying out all the activities necessary for delivery of complete project execution designs and tender documents for **“Major repairs of the local road for a segment of 1.4 km in Mănoilești village, Ungheni rayon”**, including the development of the work plan and coordination of the respective plan with the Beneficiary and Investor.

The engineers from the EU4Moldova: Focal Regions Programme will provide assistance to the Contractor to arrange and coordinate field visits, together with local public authorities and public institutions responsible for project implementation.

The Contractor will coordinate correspondingly the design and engineering processes with the local planning authorities, community representations and representatives from the EU4Moldova: Focal Regions Programme. The Contractor will obtain the endorsement and approval of the project from all the relevant authorities.

All the detailed documentation of the project will be subject to binding verification from the State Service for Verification and Expertise of Projects and Constructions or independent project verifiers with appropriate authorization in these areas. If needed, project documentation will be subject to an additional examination from behalf of experts in the area.

The design company commits itself to come up with necessary changes and technical adjustments in project documentation, which would emerge in the process of verification or construction. These changes and adjustments will be made within 5 working days since the official request from the engineer of the EU4Moldova: Focal Regions Programme.

When finishing the construction and assembly works, the Contractor shall participate in the activities of the Commission for reception of works upon their end and the Commission for final reception, and will issue an endorsement certifying the compliance of works with the execution design provisions.

E. Deadlines for drafting project documentation:

The Contractor shall carry out all the investigations and to submit full documentation for project execution, including all the written and drawn components, technical specifications and lists of works, which would be verified as established in the constructions regulatory documents, including the tender documentation in maximum 90 calendar days since the contract signature.

F. Deliverables:

The Contractor shall submit project documentation for “**Major repairs of the local road for a segment of 1.4 km in Mănoilești village, Ungheni rayon**” in line with the following deliverables and set deadlines:

F1. Location: EU4Moldova: Focal Regions Programme, Chisinau mun., 104, Șciusev Street

Item no.	Description/Specification of services	Deadline
1.	Stage 1 - Development and approval of project sketch. The representatives of the Beneficiary, Investor, Architecture and Constructions Service of Ungheni Rayon Council will participate in approving the sketch.	10 calendar days since the date the contract is signed
	Stage 2 - Development of the project execution design, which will contain all the compartments envisaged in NCM A. 07.02-2012 “Procedure for drafting, endorsing, approving and the frame-content of construction project documentation”.	70 calendar days since the date the contract is signed
Stage 2 will cover the following deliverables		
2.	General Plan. Results of on-site measurements. Survey plans.	10 calendar days since the date the contract is signed
3.	Explicative memo.	70 calendar days since the date the contract is signed
4	Drawings for execution of architectural-urbanist solutions (SAC, IA).	70 calendar days since the date the contract is signed
5.	Drawings for executing construction elements (C, PAC, PACT).	70 calendar days since the date the contract is signed
6.	Technical installations, networks and systems, installations. Drawings for executing the networks and systems.	70 calendar days since the date the contract is signed
7.	Construction works’ organization project (OLC).	70 calendar days since the date the contract is signed
8.	Environment protection.	70 calendar days since the date the contract is signed
9.	Basic requirements for operation.	70 calendar days since the date the contract is signed
10.	Estimate documentation, including the lists of quantities of works, filled in for all the items with detailed description per each item (F 7, F3, F5, F1). All the documentation will be submitted to the Investor in 3 hardcopies and 1 electronic copy. The estimate documentation, including the lists with quantities of works shall be submitted in electronic WORD. The explicative memo, written and drawn execution components shall be	70 calendar days since the date the contract is signed

	submitted in PDF format. Topo-geodesic surveying shall be submitted in DVG format.	
13.	Verification of projects by authorized/licensed experts.	10 calendar days since completion of the entire set of written and drawn components
14.	Project's surveillance by the author during the construction period.	Construction period

G. Information/requirements of general organization

The development of the project documentation shall be initiated based on project proposal approval for developing utility community infrastructure for fostering local economic development, implemented under the EU4Moldova: Focal Regions Programme and the Urbanism Certificate for design works.

Connection notices/Technical conditions for connecting the newly-designed infrastructure to the existing utilities shall be obtained from the respective institutions by the Mayoralty of Mănoilești commune upon contractors' initiative.

The following special regional climate conditions and technical characteristics shall be taken into consideration during the design period:

Climate zone of the site - III B

Weight of snow layer - 50kg/m²

Wind pressure - 30 kg/m²

Seismic degree of the construction zone - 7 degrees

Elevation system - Baltic

Data on soil structure - in line with existing geotechnical surveys.

DESIGN THEME

SITE: Project execution design for Major repairs of the local road for a segment of 1.4 km in Mănoilești village, Ungheni rayon.

Site address: Mănoilești village, Ungheni rayon

Investor: UNDP MOLDOVA, EU4Moldova: Focal Regions Programme

Beneficiary: Mayoralty of Mănoilești commune

No.	Name of basic data and requirements	Content of basic data and requirements
1.	Design basis	Project proposal for community utility infrastructure development for fostering local economic development implemented under the EU4Moldova: Focal Regions Programme, approved Urbanism certificate for design Endorsements of local public administration authorities and state surveillance bodies
2.	Name of investment	Major repairs of the local road for a segment of 1.4 km in Mănoilești village, Ungheni rayon
3.	Design stage	Project execution design
4.	Type of construction	Reconstruction
5.	Need to perform on-site surveys and research	Topo-geodesic surveying Technical examination of the existing road system
6.	Basic technical indicators: Technical category of roads; Length of the road; Width of road platform; Width of carriageway; Type of road paving: - Carriageway - Innovational space, parking, sidewalks, - Rainwater drainage system	According to requirements CP D.02.11-2014 Street in a residential district 1,4 km 15-20 m in existing parameters 5,5 – 6,0 m 378 m – asphaltic concrete paving 895 m – crushed stone paving 2151 sq.m. – asphaltic concrete paving

	<ul style="list-style-type: none"> - Side streets - Access to courtyards 	<p>Will be designed alongside the road, directing the field spills, gutters made of precast reinforced concrete</p> <p>Necessary to be arranged Necessary to be arranged</p>
7.	Design stages	<p>Stage 1 - Development and approval of the design sketch with the participation of the Beneficiary, Investor, Chief-Architect of Ungheni Rayon Council.</p> <p><u>Composition of the design sketch</u></p> <p>1. General Plan, Scale 1:500</p> <p>Stage 2 - Development of the project execution design in line with NCM A. 07.02-2012 “Procedure for drafting, endorsing, approving and the frame-content of construction project documentation” with written and drawn components for the following chapters:</p> <ul style="list-style-type: none"> - List of road defects, sidewalks, arrangements; - Explicative memo; - Road location plan. List of coordination; - Minutes for determining the suppliers and the distances for road construction materials; - List of existing networks; - Basic technical-economic indicators; - Centralized list of works; - Volume of works, including: <ul style="list-style-type: none"> 1. Volume of works for cutting trees and shrubs. 2. Demolishing of existing road signs. 3. Demolishing existing curbs. 4. Demolishing existing sidewalks. 5. Demolishing access road system. 6. Volume of demolishing works and those for slabbing the existing road surface. 7. Cleaning the system if rainwater drainage. 8. List and location of landmarks. 9. Geometric elements of routes. 10. Enhancing and landscaping green spaces. 11. Arrangement of pedestrian and road systems, edging. 12. Partial road lighting system.

		13. Applying small architectural forms: public transportation stations, benches, trash cans etc.
8.	Exigencies related to design versions	No other version shall be developed after approval of the design sketch.
9.	Special exigencies related to construction	Climate zone: III B Snow burden: 50kg/m ² Wind pressure: 30 kg/m ² Seismicity degree: 7 degrees Data on soil structure: in line with existing geo-technical surveys
10.	Basic technical-economic indicators	Land surface: ~ 1,50 ha
11.	Special conditions for determining the volumes of works to be performed	1. Developing the work plan and coordinating it with the Beneficiary and Investor. 2. Performing the topo-geodesic survey ~ 1,50 ha. 3. Technical examination of the existing road system and engineering constructions;
12.	Project execution documentation will include the following compartments	- General plan; - Organization of construction works; - General explicative memo; - Urbanistic-architectural solutions; - Building solutions; - Arranging the gutters for rainwater drainage; - Power supply installations and networks for public lighting (extending the network); - Telecommunication and signaling installations and networks, video surveillance; - Environment protection; - Surveying plans; - Estimate documentation; - lists of quantities of works; - Basic operational requirements.
13.	Destination, capacity and type of reconstruction	Road in residential district and outside the build-up area in Mănoilești village, access to at least 13 economic units.
14.	Exigencies related to architectural-building solutions	In line with the provisions of the Law No. 721 of 02.02.1996 on quality in construction (with subsequent amendments and completions).
15.	Exigencies related to construction materials	To envisage in the project the use of construction materials with increased resistance in time.
16.	Requirements for technical equipment	- Equipment for charging electronic devices (incorporated in the bench);

		<ul style="list-style-type: none"> - LED type lighting fittings and equipment; - Video surveillance camera.
17.	Requirements for ensuring conditions for vital activity of persons with mobility impairments	To envisage installation of railing in line with NCM C.01.06-2014 “General security requirements for construction sites for their use and accessibility for persons with disabilities”.
18.	Deadlines for executing and developing project documentation and estimates	Consecutively 70 calendar days.
19.	Deadlines for verifying project documentation and estimates	Consecutively 20 calendar days.
20.	Exigencies related to project documentation	Developing the beneficiary’s cost estimates (Forms 7,3,5,1). The entire set of documentation will be developed and submitted to the beneficiary in 4 copies (Execution drawings (written and drawn components) shall be submitted in 3 hardcopies and 1 electronic copy, and namely in PDF format, the estimates and lists of quantities of works shall be submitted in WORD format, and topo-geodesic surveys will be submitted in DVG format).
21.	Requirements for verification and coordination	<p>According to the Urbanism Certificate requirements.</p> <ul style="list-style-type: none"> - All the documentation will be endorsed correspondingly and in line with the norms in force; - The designer is responsible for all coordination, including with the specialized institutions, and obtaining the approvals for the project according to the RM legislation; - The designer shall ensure the verification of the project documentation.
22.	Requirement for surveillance from project author	Necessary.

Note: The design theme is developed in line with NCM A.07.02-2012

The Bidders shall examine the site until the end of the tender (on compulsory basis) and will submit the offer which will cover all the necessary costs for carrying out the design process. Additional works shall not be accepted.