# VOLUME 3

# TECHNICAL SPECIFICATIONS

**GENERAL REQUIREMENTS**

The Technical Specification is an integral part of the Tender Documentation /TD/ together with the provisions of the Contract, the detailed design drawings, building permissions and the other contract documents. The Specification specifies and further develops the requirements for the implementation of the construction works under the Contract.

Implementation of construction and assembly work must be consistent with all relevant execution of specific types of works legal and regulatory framework, technical rules and regulations and applicable standards following sequence and technology of the performance of different types of works in different parts of the site.

## Drawings, As-built Documentation and Operation and Maintenance Manuals

The contract Drawings are those listed in Volume 5, and those as shall be supplied under the Contract.

The As-builtdrawings and Operation and Maintenance Manuals shall be prepared in English and Macedonian languages.

The Contractor shall submit to the Supervisor, all the prepared documentation as well as all other guarantees and operation manuals for the installed equipment in three copies and in electronic format.

## Access to Site

The Contractor shall provide means of access to and on the site, for all personnel, materials and equipment.

For purposes of carrying out the Works, the Contractor shall limit his installations and operations to the defined working areas, as shown on the Drawings.

The Contractor if is necessary, shall submit for approval of the Supervisor and the relevant Authorities/Departments of the Republic of North Macedonia, details of his planned installations and operations at the sites defined on the Drawings as Contractor's working areas.

The Contracting Authority will provide free of charge a working area for the Contractor. The Contractor shall be responsible for the provision of suitable construction materials and for the construction of all-temporary offices, stores and workshops.

The Contractor shall provide a temporary fence to demarcate the working area and to provide a boundary during the construction period.

## Construction Generally

The following general requirements shall apply at each site:

1. The Contractor shall provide and maintain all temporary roads, foot-paths and structures, necessary for the purpose of the Contract. On completion of the works, the Contractor shall remove such structures and restore the ground to the satisfaction of the Supervisor.
2. The Contractor shall provide adequate lighting where work is being carried out and shall provide and install any additional lighting, which the Supervisor may require.
3. The Contractor shall be responsible for the location of suitable sources of materials for the execution of the works, except where otherwise specified, whether such sources are on the site or not and for obtaining all necessary permissions.
4. Materials available on the site shall be used for the execution of the works.
5. Structures, which are to remain intact, shall be properly located, adequately supported, protected and maintained. Services shall be similarly treated, unless a diversion is deemed necessary, in which case it shall be carried out in a manner that prevents inconvenience to the owner and ensures the continuity and safety of the services concerned.
6. The Contractor shall not pollute roads, lands and other places on the site.
7. The Contractor shall provide and maintain adequate communications around the site.
8. The Contractor shall provide, maintain and remove on completion of the works, fencing of the site and adequate security measures on access roads, but without prejudice to his obligations such as maintenance of free access for the Contracting Authority, the Beneficiary, the Supervisor and any other persons entitled to such access.
9. As may be required by the Authority concerned, the Contractor shall be responsible for locating and protecting existing pipes, cables and other items of existing services and for the avoidance of damage to existing pavements and buildings, whilst they continue to be in use. In the event of the Contractor damaging water, fuel, electricity or telephone services, whether these have been marked out or not, the Contractor shall immediately inform the Authority concerned, and advise the Supervisor.

The Contractor must keep a log at the construction site. This log must contain all changes and deviations from the detailed design. The construction log shall be signed and stamped by the Contractor and the Supervisor.

## Construction Program

In accordance with the Conditions of Contract, the Contractor shall submit to the Supervisor detailed programmes for the execution of the works, showing the order in which the various sections of the work are to be constructed, and in so shall take account of the restrictions andlimitations described in this Specification.

Detail planning of working programme shall be agreed with the representative of the Contracting Authority.

Once accepted by the Supervisor, the programmes shall be strictly followed, unless any alterations are found necessary during the construction and confirmed by the Supervisor.

The Contractor shall state and allow a reasonable margin of time for the contingencies.

## Submissions to the Supervisor

Wherever these Specifications require, the Contractor shall submit to the Supervisor proposals, details, calculations, information, materials, test reports, certificates, etc. The Supervisor will consider each submission and shall reply to the Contractor in accordance with the relevant provision of the Contract Conditions.

No operation shall be carried out without complete notice having been given to the Supervisor by the Contractor, sufficiently in advance of the time of the operation to enable the Supervisor to make such arrangements as he may deem necessary for its inspection and checking.

The approval of the Supervisor of any submission shall not relieve the Contractor from his responsibilities under the Contract.

## Setting Out

The Supervisor will indicate to the Contractor sufficient primary reference points close to or on the sites, for the use by the Contractor in setting out the works. The Contractor shall set out the whole of the works relative to these points.

The Contractor shall protect the above reference points and level bench marks, and in the event of damage shall survey and re-establish the points.

The Contractor shall set out the works in accordance with the Drawings supplied by the Supervisor, or as instructed by the Supervisor.

The Contractor shall verify all dimensions and levels shown on the Drawings and referred to in the documents forming of or issued under the Contract, on the site, and he will be held responsible for promptly pointing out errors in such dimensions and levels.

The existing reference benchmarks indicated by the Supervisor shall form the basis of measurement for all Construction works, unless otherwise requested in writing by the Contractor, or unless otherwise stated in the Contract Documents.

## Approval of sources, materials and plants

Materials incorporated must originate in a Member State of the European Union or a country covered by the Interreg - IPA CBC Programme 2014 – 2020. However, the goods to be purchased may originate from any country, whenever the total price of the estimated quantity of those goods, as reflected in a separate item of the Breakdown of the Lump-sum Price (Volume 4.2.3) is below 100.000 €. Material that originates from sources, which are not approved by the Contracting Authority and the Supervisor, cannot be used for Works.

Approval of a source does not mean that all material in the source is approved. The Contractor has to ascertain by continuous control check measurements that only material which complies with the requirements specified in the various clauses of these specifications will be used for the Works.

## Weather Conditions

Without limiting his liabilities, the Contractor shall make suitable arrangements to protect the works and the temporary works, against the effects of the weather.

## Disposal of Materials

The Contractor shall not dispose of materials of any kind obtained from the site without the permission of the Supervisor. Debris shall be removed only to dumping areas approved by local authorities.

The Contractor must provide full compliance with the Rulebook on processing communal and other kinds of solid waste (Official Gazette 147/07).

## Testing by the Contractor

The Contractor shall provide throughout the whole period of execution of the works, as requested by the Supervisor, all necessary tests for the control of the materials and workmanship, in accordance with this Specification. If necessary, the Contractor shall have such tests carried out by an independent organization, acceptable to the Supervisor.

## Safety on Site

Safety on site shall be a prime consideration of the Contractor who is to appoint a Safety Supervisor throughout the contract. This person is to provide the Supervisor with weekly reports on safety of all operations including regular inspection reports on all site equipment and the storage of hazardous materials.

The Contractor is to ensure that all persons working on the site are to have adequate personal protective clothing. He is also to provide the Supervision staff with helmets when visiting the site.

## Quality Assurance

The Contractor, his suppliers and other sub-contractors, shall comply with the Quality Standards set out in the Conditions of Contract, in all respects. Copies of the quality plan, records and other documentation, shall be submitted to the Supervisor, in respect to imported materials and before such materials arrive on the site.

## Liaison with CA

The Contractor shall keep in close contact with Contracting Authority Officials.

## Applicable standards

As a minimum the Macedonian standards and codes shall always be satisfied. Other internationally acknowledged standards and codes may be used only if:

* They are more or at least equally stringent compared to the respective Macedonian standards and codes or
* European technical approvals (with or without guidance).

The materials which are used must correspond to the requirements of the standardized documents asset in Macedonian standards and codes.

If the Contractor should wish to supply material or execute work to an alternative national standard or international specification, he shall give full details of his proposal in writing to the Supervisor.

## 1.17 Signs

The Contractor shall provide and maintain in good condition at least *one* project identification sign securely supported in a prominent location near to the access to the site. The signs shall be prepared strictly in accordance with the EU guidelines for Visibility.

* 1. **CONTROL OF WORKS**

The Contracting Authority will provide a consultant who will supervise construction with investment functions, according to Macedonian legislation and other legal acts in construction works. The Contracting Authority and / or Supervisor may at any time inspect the work, control technology performance and issue instructions to remove the defects, according to the specified technology and method of implementation. If found serious defects, errors and low quality performance, the Contracting Authority shall notify the Contractor that breached the contract and should stop to work. The Contractor shall always provide access to the construction site of the authorized representatives of the Contracting Authority and the Supervisor.

**2.1 Contractor's equipment**

The Contractor shall furnish equipment which will be efficient and appropriate to secure a satisfactory quality of work and a rate of progress which will insure the completion of the Works within the time stipulated in the Tender. If at any time such equipment appears to be inefficient, inappropriate or insufficient for securing the quality of work required or for the rate of progress, the Supervisor may be entitled to order the Contractor to increase the efficiency, change the character or hire additional equipment, and the Contractor shall conform to such order.

**2.2 Protection of existing structures and utilities**

The Contractor shall assume full responsibility for the protection of all buildings, structures and roads existing in the area of the construction site, public or private, whether or not they are shown on the drawings.

The Contractor has to pay special attention to avoid any damages on any protected areas.

Any damage resulting from the Contractor's operations shall be repaired at his expense.

**2.3 Safety and security on site**

Safety and security arrangement should be performed in accordance with Macedonian Construction Law

**2.4 Handling and storage of materials and plants**

All materials and plants to be incorporated in the work shall be handled and stored in a manner, which prevents injury of any kind whatsoever. Any materials or plants which, in the opinion of the Supervisor, have become too damaged to be fit for the use intended or specified shall be promptly removed from the site, and the Contractor shall receive no compensation for the damaged material or its removal.

**2.5 Clean-up work**

The Contractor shall clear way and remove from the site any wreckage, rubbish and temporary works, which are no longer required.

**2.6 Responsibility of the Contractor**

Approvals from the Supervisor do not relieve the Contractor from his obligations or responsibilities under the Contract.

**3. ADMINISTRATIVE SPEIFICATIONS.**

**3.1 Progress meetings**

The Contractor shall agree with the Supervisor and the Contracting Authority for dates for regular progress meetings. These meetings shall normally be held monthly, no later than 10 working days after the completion of each month.

**3.2 Quality assurance**

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of this contract. The system shall be in accordance with the details stated in the Contract. The Supervisor shall be entitled to audit any aspects of the system.

**4. IMPLEMENTATION OF THE WORKS**

**4.1 Materials**

The Contractor shall use only materials that conform to the technical requirements set forth in the clauses of this Technical Specification.

All Materials and Plant supplied to perform the Permanent Works under the contract shall be new products. Second-hand Materials and Plant will not be accepted.

The Tender drawings constitute the drawings issued for construction/ installation/ execution.

**4.2 Testing**

Reliable shall be only the type and amount of tests performed in conformity with the prescription of this Technical specification, except when this right is granted to the Contracting Authority.

The Contracting Authority may require additional tests when the results obtained are uncertain. Beside the tests specified in this Specification, the Contracting Authority may require additional tests to establish possible hidden omissions and effects. Costs for these tests shall be entirely at the Contractor’s expense if such defects are confirmed.

**4.3 Inspection and measurement of works**

The Contracting Authority may at any time inspect the quality and measure the amount of works performed. If this cannot be done with the Contractor’s assistance, a deadline shall be fixed for hiring external specialists. In this case, the expenses shall be paid by the Contractor.

**5. PREPARATORY WORKS**

Before starting the works the Contractor has to perform some preparatory works at the site.

**5.1 Boards and signs**

The Contractor shall mount and maintain in good condition a board with the name of the project and the co-financing institutions written in a way /text and font size/ conforming to the requirements of the Contract and in compliance with EU visibility guidelines.

**5.2 Setting out the site**

The Contractor shall in co-operation with the Contracting Authority set out the total site to be used for construction.

**5.3 Temporary facilities**

The Contractor shall affect all expenditure for establishing, operation and removal of temporary facilities if such are needed for the good performance of the Contract. All needs for establishing such facility shall be duly justified.

**5.4 General supply facilities**

***Sanitary Arrangements***

The Contractor shall provide for and maintain temporary sanitary facilities on the site for the use of all persons connected with the Works. The Contractor shall keep the facilities in a clean and sanitary condition, and shall post notices and take such precautions as may be necessary to keep the site clean.

***Water supply***

The Contractor shall provide for and maintain an adequate supply of potable water for his use. The water supply shall be used for construction purposes and for consumption in the temporary facilities.

***Power supply***

All electrical power required by the Contractor shall be provided by him at his own expense. The Contractor prior to taking-over of the Works shall remove all temporary installations if it is not agreed upon that the Contracting Authority takes over the installations.

**6. ADDITIONAL SPECIFICATIONS**

All provisions and clauses from the Macedonian Construction Law and other codes that are valid obligate the Contractor.

SPECIFIC REQUIREMENTS

TECHNICAL DESCRIPTION

The main objective of the contract is to create new modern public areas that will provide conditions for improving the environment, through the creation of new green areas, reconstruction of the existing green urban areas and their preservation. The scope of this activity includes three locations on the territory of the urban area of the Municipality of Shtip with the following cadastral plots: KP 4404/1, 4409 and 4401 KO Shtip 3, a plot that has been neglected for several decades and is part of an urban community, a complex of homes for individual housing and collective housing, KP 4454/1 KO Shtip 3 and KP 10239/1, KO Shtip 4

The first location is a plot that is located right behind the Kindergarten in the neighbourhood "8 Noemvri" on Blvd. "JNA", is the main traffic artery of the settlement, the access (pedestrian and bicycle) is exactly from this street from the Northeast, and from the West it goes to the pedestrian path of the Bregalnica river and is in close proximity to numerous residential buildings. The main goal of this contract is the need to arrange the green area with an area of 10000m2, but also to enrich the yard of the kindergarten with new educational content. The planting of new greenery (low and high) is planned, which will consist of tall deciduous trees, decorated with flower arrangements and low-stemmed decorative evergreen plants. The activity envisages the installation of urban equipment, solar lanterns and education through entertainment. A garden with cherry trees, flower pots that will be irrigated by storm water through the building's gutters and a greenhouse is planned in the part of the kindergarten's yard. Within the framework of the activity, a footpath is planned that will be paved with permeable paver elements of several types, with a dynamic design, which will improve the conditions for rational use of space and contents.

The second location activity envisages the arrangement of new green areas in the urban part of the city and the planting of low-stemmed evergreen trees, tall-stemmed deciduous trees, planting of flowering / hidden seed plants with hydrotechnical conditions, irrigation. The investment also foresees the arrangement of paths, recreational footpaths with eco paver elements in a length of 2500 meters, arrangement of places for recreation of the population.

The third location is a small pocket park in the urban part of the city, within the framework of which it is planned to green the space with new areas of grass, planting of high-stemmed deciduous trees, of the maple species, installation of pots, planters that will be irrigated by storm water and arrangement of a space for rest and protection of the population from the summer heat and places for recreation.

Total area covered is one hectare in the central city area.

Location no.1

INSTALLATION OF URBAN EQUIPMENTON A GREEN AREA

In the neighbourhood "8 Noemvri"

JNA Blvd.

on part of KP 4404/1 and KP 4401 - KO Shtip 3, Stip municipality

Installation of urban equipment on a green area in the neighborhood "8 Noemvri", specifically on part of KP 4404/1 and KP 4401, KO Shtip 3 which are located behind the Kindergarten and the yard of the kindergarten itself in this neighborhood on Blvd. "JNA", which is considered the main traffic artery of the settlement. The access (pedestrian and bicycle) is exactly from this street from the Northeast, and from the West it goes out to the footpath on r. Bregalnica is in close proximity to numerous residential buildings for collective housing. It is planned to arrange the green area with an area of ​​5000m2 on which there are wild plants (KP 4404/1), as well as enriching the yard of the kindergarten with educational content. The intervention includes the planting of new greenery (low and high), installation of urban equipment (benches, waste bins and solar lanterns) and platforms for children's floor play and education through entertainment. A garden with cherry trees, pots that will be irrigated by storm water through the building's gutters and a 50m2 greenhouse is planned in the part of the kindergarten's yard. In addition to the installation of urban equipment and greenery, a footpath will also be built, so that it will be paved with paver elements of several types, with a dynamic design where on the planned expansions (platforms) there are planned contents for children's floor play and education through entertainment, which will improve the conditions for rational use of space and contents.

2. LOCATION

The location that has been chosen for development is located in the neighborhood "8 Noemvri", on part of KP 4404/1 and KP 4401, KO Shtip 3, where the access (entrance/exit) will be from the northeast side of Blvd. "JNA" which is considered the main artery of this settlement and from the West from the footpath on r. Bregalnica. These cadastral plots are surrounded by facilities for collective housing and education (kindergarten and primary school).

3. FUNCTION AND CONSTRUCTION

The pedestrian surface will be made of paver elements (becaton) 10/20/6cm in graycolor in combination with basalt cubes 10/10/10cm, and most of the path will be made of Eco Paver blocks 60/40/10cm which have special openings for grass area. The sides of the path will be made with garden curbs 19/50/6cm in graycolor embedded in a concrete base. The placement of the paver elements will be on a base of separated sand D=5-6cm on a buffer D=12-15cm (previously leveled), with side slopes of 0.5% in order to drain stormwater towards the greenery. The direction of the path starts from the Northeast from Blvd. "JNA", bypassing the yard of the kindergarten, with a longer leg that goes down to the Southeast, and near the intersection of these two legs is the connection with the asphalt footpath on r. Bregalnica via a ramp due to the height difference between the plot and the path. The pedestrian surface is intentionally broken for the sake of dynamism in the movement in order to keep attention on the surroundings - the greenery and the contents for rest and recreation. Extensions are also planned along the routes of movement, paved with becathon, which will be designed with contents for children's floor play, which are for education by way of entertainment. These contents are complete with park benches for sitting with support, metal waste bins, solar candelabra for lighting in the evening hours, and a water fountain is also planned (in the Hydrotechnics phase). The greenery will consist of tall deciduous trees, decorated with flower arrangements and low-stemmed ornamental evergreens. Irrigation will be carried out through the existing and newly planned plumbing installation, which is shown in more detail in the Hydrotechnics phase. In the part of the kindergarten's yard, the planned garden is with cherry trees, the pots are located near the building's drainage gutters to be watered by storm water, and the 50m2 greenhouse is provided by an easily assembled construction of galvanized steel pipes, with two doors and polyethylene film cover. On the North and South sides of the plot, near the storm drains, a wooden protective fence with a height of 150 cm is planned, which will be made of wooden elements - 8/10/200 cm frames for vertical supporting pillars anchored in a concrete foundation at an axial distance of 200 cm, frames 5/8/400cm for horizontal fastening elements and filled with boards 2.5/15/133cm placed at a mutual distance of 10cm. The fence will be finished with ecological materials - basic and water-based enamel paint, and it is shown in detail in the graphic part of the project, Architecture phase.

4. GROUND FLOOR ARRANGEMENT

In terms of landscaping, the area to be landscaped will be completely landscaped with a total area of ​​5000m2, with clearing of dead plants, planting of tall foliage, installation of low-stemmed and ornamental plants, as well as a grassy area of ​​4000m2. In particular, the part of the path with eco paver blocks will be processed with high-quality humus and grass seed, which are applied in the special openings of the blocks. Urban equipment of benches, waste bins and solar lanterns will be placed along the pavedpedestrian area

**Location no. 2**

Place: st. "Mirce Acev" and st. "Leninova"

on part of KP 10239/1, KO Shtip 4, Municipality of Shtip

The contract envisages installation of urban equipment on a green area on st. "Mirce Acev" and st. "Leninova", on part of KP 10239/1, KO Shtip 4, which is located right behind the existingsports field on st. "Mirce Acev", which is considered the main traffic artery of the settlement in this part of the city. The approach (pedestrian and traffic) is exactly from this street from the Northeast, where it intersects with st. "Leninova". On these two streets there are numerous residential buildings for individual housing, and in the immediate vicinity are the Clinical Center - Shtip and the Secondary Medical School "Jane Sandanski".

The green area with an area of ​​4850 m2 is being arranged, which for several decades has been just a plot of wild plants, but it is also planned to enrich the contents that will build on the sports-recreational character that is intended as a land use according to the DUP.

The intervention involves the planting of new greenery (low and high), installation of urban equipment (benches, waste bins, gazebos, fountains and solar candelabra) and platforms for children's play and a protective fence. In this way, a worthy place for rest, socialization and recreation of the residents will be obtained in one of the urban modern neighbourhoods of the city.

In addition to the installation of urban equipment and greenery, it is also necessary to build a footpath, so that it will be paved with paver elements of several types with a dynamic design, and natural (river) stone will be poured on the provided platforms with props for children's play. a base for safer use of the handles, which will improve the conditions for rational use of space and contents.

LOCATION

The location that was chosen for arrangement is located at ul. "Mirce Acev" and st. "Leninova", specifically on a part of KP 10239/1, KO Shtip 4, right behind the existing sports field exactly on ul. "Mirce Acev", where the access (entrance/exit) will be from the northeast side of the junction between st. "Mirce Acev" and st. "Leninova". Ul. "Mirce Acev" is considered the main artery of this neighbourhood, while ul. "Leninova" is a branch that stands out in parallel and serves part of the green area in the Northwest of the plot. As a second approach to the plot, the southeast side, which is connected via the secondary street, can be used. "Trajko Koshevski". This cadastral plot is surrounded by facilities for individual housing and education (secondary medical school), and in the immediate vicinity is the Clinical Center - Shtip.

FUNCTION AND CONSTRUCTION

The pedestrian area, as well as the platforms of the gazebos and pergolas, will be made of Eco Paver blocks 60/40/10cm that have special openings for a grassy area, with a specially separated part in the Northwest of the plot on st. "Leninova" made with paver elements (becaton) 10/20/6cm in greycolour with a possible combination with yellow becaton tiles. The sides of the path, the platforms of the gazebos and pergolas, as well as the special design of the pedestrian areas will be made with garden curbs 19/50/6cm in greycolour fixed in a concrete base. The placement of the paver elements should be on a base of separated sand D=5-6cm on a buffer D=12-15cm (previously levelled), with side slopes of 0.5% in order to drain storm water towards the greenery. The path starts from the Northeast at the junction between st. "Leninova" and st. "Mirce Acev" from where it splits into two legs made with Eco Paver blocks: One on st. "Leninova bypassing the specially arranged park section in the North-West with gazebos, fountain and becaton pavement; The other leg descends to the Southeast, passing through the part of the plot intended for rest, enriched with contents such as benches, a fountain, pergolas with picnic benches, and ends at the approach from the secondary street. "Trajko Koshevski". The pedestrian surface is fragmented for the sake of dynamism in movement in order to keep attention on the surroundings - greenery and contents for rest, entertainment and recreation. On the south-western side of the plot, a wooden protective fence with a height of 150 cm should be placed, which should be made of wooden elements - frames 8/10/200cm for vertical bearing posts anchored in a concrete foundation at an axial distance of 200cm, frames 5/8 /400cm for horizontal fastening elements and filled with boards 2.5/15/133cm placed at a mutual distance of 10cm. The fence should be treated with ecological materials - basic and water-based enamel paint, and it is shown in detail in the graphic part of the project, Architecture phase. Complete with gazebos, pergolas with picnic benches, park benches with support, concrete waste bins, as well as solar candelabras for evening lighting, water fountains are also provided. The greenery will consist of tall deciduous trees, decorated with flower arrangements and low-stemmed ornamental evergreens. Irrigation will be carried out through a plumbing installation shown in detail in the Hydrotechnics phase

GROUND FLOOR ARRANGEMENT

In terms of landscaping, the landscaped area will be completely landscaped with a total area of ​​4850m2, with clearing of dead plants, planting of tall foliage, installation of low-stemmed and decorative plants, as well as a grassy area of ​​4850m2. In particular, the part of the path with eco paver blocks will be treated with high-quality humus and grass seed, which are applied in the special openings of the blocks. Urban fixtures of benches, waste bins and solar lanterns will be placed along paved walkways and resting areas, including pergolas and gazebos that havea set of picnic benches for sitting with tables, and a wooden protective fence with a height of 150 cm is provided on the southwest side of the plot

Location no.3

INSTALLATION OF URBAN EQUIPMENTON PART OF KP 4454/1, KO SHTP 3, Municipality of Shtip st.Pirinska

Arrangement of an area for the installation of urban equipment is planned, i.e. installation of a gazebo and benches on a public traffic area. The main goal of this project is the need to improve the living conditions in the surrounding buildings. Raising awareness for the protection and care of nature among the general public and promoting social awareness among citizens. The scope envisages the planning of ground floor arrangement, which will complete the purpose of this entire part and will give special emphasis to this space.

2. LOCATION

The area to be arranged is located on part of KP 4454/1, KO Shtip 3 on Pirinska street. At the given location, there are tin garages that need to be dislocated for the performance of the park arrangement. The surface that is subject to arrangement is 858m2.

3. FUNCTION AND CONSTRUCTION

Installation of urban equipment and at the same time improvement of the area around it by clearing the area of ​​bushes and waste. The goal of the project is to form a corner that will represent a vacation for the tenants through eco design and sustainable development. Ecological materials were used through the so-called prefabricated eco-concrete (60/40/10cm) which has the function of not hindering the natural movement of rainwater, i.e. the natural sinking of rainwater through the openings for laying grass. It is necessary to form a corner for socialization, by placing benches between which tall trees will be planted, which are placed on a small stone ridge shaped like a path. Next to the children's playground is a summerhouse made of wooden construction with a green shingle roof. There is a path that leads to the entrance of the building. The sides of the path will be made with garden curbs 19/50/6cm in greycolour embedded in a concrete base. The placement of the paver elements will be on a base of separated sand D=5-6cm on a buffer D=12-15cm (previously levelлed), with side slopes of 0.5% in order to drain stormwater towards the greenery. All these contents are accompanied by park benches with support and waste bins.