



Perla  
Harghitei.  
*iubește natura*

Think.....SUSTAINABLE.....GREEN.....TRADITION.....BALANCE.....PEOPLE.....NATURE

# Perla Harghitei

## ARCHITECTURE COMPETITION

*Design brief*

Partners:



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CHAMBER OF HUNGARIAN ARCHITECTS





Think... SUSTAINABLE.....GREEN.....TRADITION.....BALANCE.....PEOPLE.....NATURE

## Think sustainable

Sustainability is present as a generative idea in most fields and requires special attention in architectural concepts as well. Sustainability does not only mean an nZEB building, it is also the specific creative process by which we decide the shape, the orientation of the building, the use of materials from renewable, natural sources, completed with smart systems and installations and the use of renewable energy sources.



## Think green



Green buildings are both a novelty and a challenge, but the message is extremely powerful.

**Love nature!**

And at the same time, it challenges the creative spirit to embed the message in the architectural concept.



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## Think tradition

Combining traditional elements with modern ones, introducing volumetric specificities or architectural aesthetic characteristics will be one of the most important themes in the solution competition. All the more, as the new building will have to be designed in correlation and together with the existing office building, the focus being on remodeling the existing building and fitting the new one into the local specifics. The architectural guide for the traditional architectural elements of this region, published by the Romanian Order of Architects will be available to the participants in the annex to this Design brief.



## Think balance



Architectural creation is complete when it is in balance. Any composition requires a harmonious combination of forms, materials. The challenge is to find the balance desired by the beneficiary between the existing elements, between the new and the traditional local architectural features.



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## Think people

Architecture without people means only bricks, stones, concrete and iron. People make architecture alive, through them it becomes a space full of life, full of meaning. For this reason we want to have an important focus on the people who will use these spaces. The memory of the existing space requires merging with the new creation in such a way as to preserve what defines the people here.



## Think NATURE



Water, soil and green nature – the new building should incorporate, reiterate, reinvent all these elements.

# General information

## 2.1. The objective:

Architectural solution for an office building for Perla Harghitei – concept for a new building and remodeling the existing office building

## 2.2. The beneficiary:

- Company name : PERLA HARGHITEI S.A, CIF RO505623, J19/127/1991
- address; : jud. Harghita loc.Sâncrăieni str.Gării nr.600
- email: [concurs.solutii@perlaharghitei.ro](mailto:concurs.solutii@perlaharghitei.ro)
- email of competition curator: [orsolya.kover@perlaharghitei.ro](mailto:orsolya.kover@perlaharghitei.ro)

## 3. Data about the objective

### 3.1. Information regarding technical and legal data of the objective

The plot on which the architectural solution is required to be presented is in the property of Perla Harghitei.

According to the General Urbanism Plan of village Sancaieni the terrain is contained in the UTR nr III north area Kincseszeg.

For industrial functions the urbanism requirements are the following:

ID – INDUSTRIAL AND PRODUCTION BUILDINGS AREA

#### A) General information

- predominant function: production buildings ID
- Complementary functions: Cr, ISco, ISps, ISf, Ppp. (to check: Annex documents no.02)

#### B) Functional usage:

- permitted functions:  
Productive and storage buildings
- functions permitted with conditions:

Development of production activities with mandatory elaboration of urbanism documentation – PUD or PUZ (not in competition scope)

#### – forbidden functions:

Production units which may produce dangerous residues or which through it's activities creates pollution

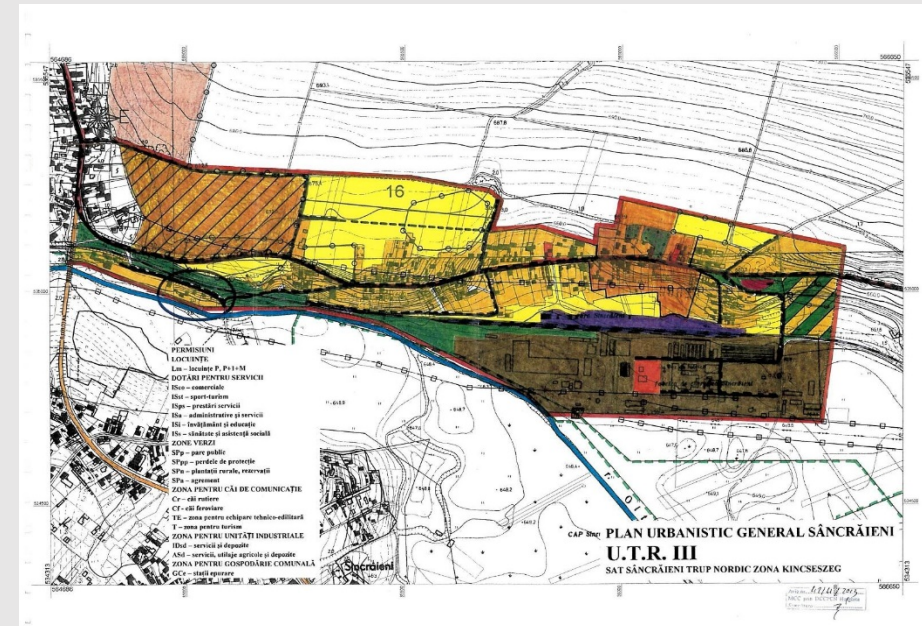
Activities which create volumes or facades which does not integrate in the existing urban tissue .

Percentage of terrain occupancy and terrain usage coefficient:

- Green spaces minimum 20% of the terrain
- Percentage of terrain occupancy =50%
- Terrain usage coefficient: general built area (GBA) / Total surface of the studied plot (A terrain) =1,5

For the location of the new building to see Annex documents no.01.

For cadastral plans and topographic measurements to see Annex documents no.01.



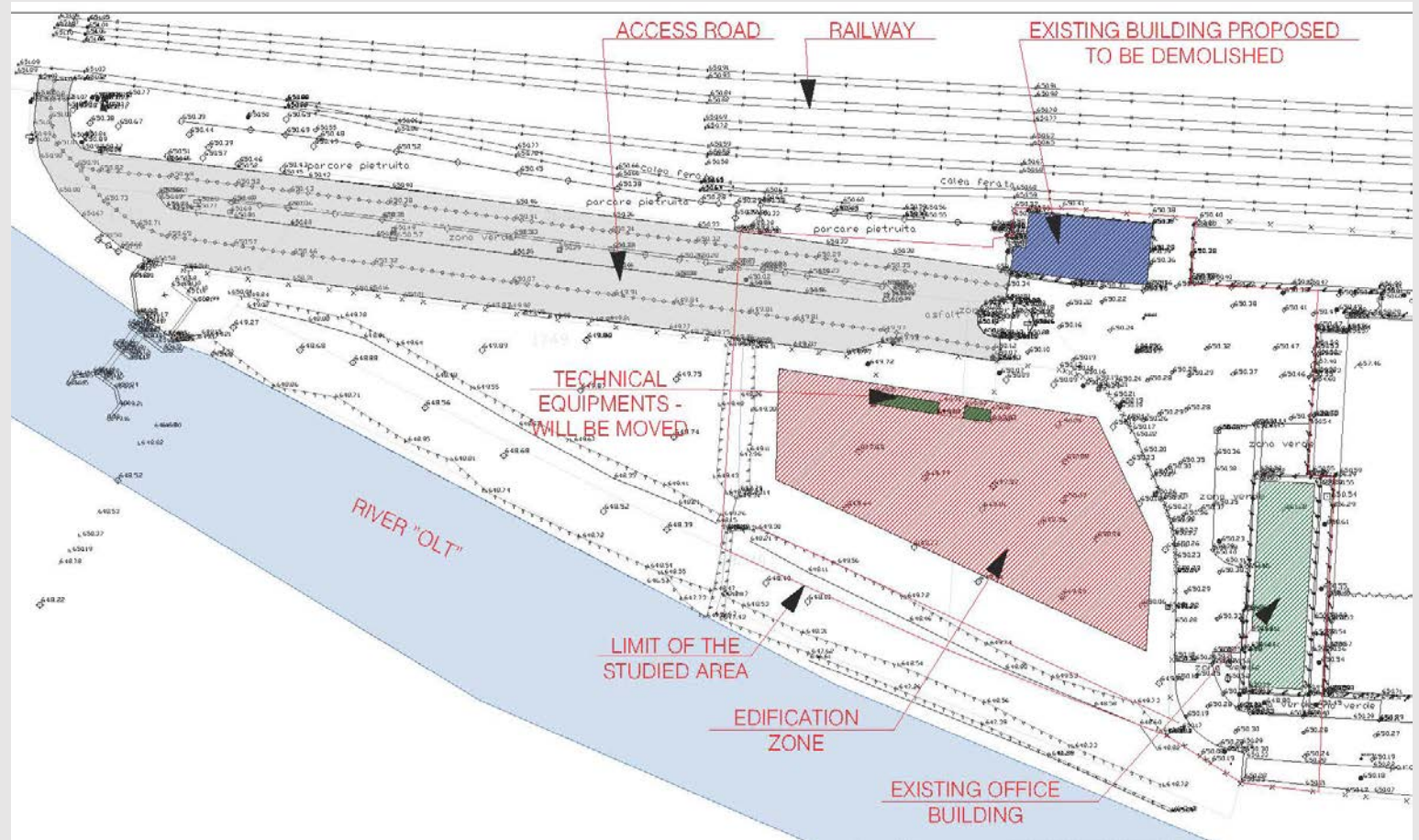
General urban plan of Sancaieni village

# Design brief

## 3.2. Information about the plot and location :

a) general information about the plot – location, terrain area, dimensions

The studied plot is located in the northern part of Sanraieni village, area called Kincseszeg, Garii street, no. 600, in Harghita county. In the immediate neighborhood is the railway station and the railway is right next to the northern limit and river Olt is right next to southern limit of the plot. The total area of the terrain of the Perla Harghitei factory is according to the topometrical plan in Annex no. 01. The studied plot however has a total surface of 5479 sqm as it's combined of the (CF53239- 2700sqm, CF9239 - 2779 sqm). The studied area is marked with a red line and can be seen also in the images below. On googlemaps image the existing office building is marked with a yellow cloud-shape. The existing office building has to be reorganized and remodeled in order to be in the same architectural spectrum as the newly proposed building. The existing and the new building can be linked together, but it is not mandatory and also the existing circulation in front of the existing office building has to be kept and also available for heavy traffic.



Presentation of the plot, access, location of the studied area and existing buildings on topographic plan

# Design brief

3.2.a1. Extract from googlemaps with indication of the main directions:



*Presentation of the location of the plot on googlemaps*

# Design brief

## b) neighboring zones, existing accesses:

The only access road is a secondary one which has a 7 to 10 m wide profile and which crosses over the railways and has direct access to county road E578. No new accesses are required to be proposed, the proposed solution will use this existing access and roads.

## c) pollution sources in the neighborhood;

None.

## d) topography particularities;

The studied plot does not have significant slopes or curves. (to see: Annex no.01), the architectural concept will detail including the exterior design, especially if the concept requires remodeling of the terrain.

## e) utilities, MEP exterior network;

The new building can be connected to all existing MEP exterior networks. (to see: Annex no. 04.)

## f) restrictions or collisions with existing MEP networks on studied site:

The concept will take in consideration the existing utilities as shown in the MEP exterior network plan from Annex. No. 04.

## g) other restrictions;

The neighboring railway means a 20 m protection zone on both sides of the railway in which cannot be any constructions, only landscaping and circulation, parking area. The general rules are in OUG12/1998 in Annex no.05.

The other restriction is referring to the existence of an irrigation channel which cannot be plugged or constricted in any way, but it can be crossed by small bridges and can be partially covered.

The last restriction is in connection with river Olt, which has a flood-zone in which it's forbidden to place constructions, but can be used as green space and also landscaping projects can be executed. For flooding area one can check the Good practice guide indicative RTC 12-2023, in Annex no. 07.

## h) constructive system of the existing office building, general information;

The existing office building needs to be reorganized and the facades remodeled, reshaped in order to fit visually in the new concept.

The main technical elements of the building are the following:

Reinforced concrete structure with columns and beams, slabs also of reinforced concrete. Exterior and interior walls are of bricks and none of them are structural. The category of importance of the building is C, III - normal building. Fire resistance – normal building, ranked II. The building does not have any damage signs, no structural damages, the general state of building according to visual evaluation is “good”. This means that interventions are possible on the building to reorganize and remodel. The MEP parts can be kept or can be changed, according to the concept. The building must be insulated as it is not nZEB and it is mandatory that the new solution to be categorized as nZEB. The existing plans, facades of building can be seen in Annex 03. The existing car and truck access/circulation must be kept as it must be functional at all times.

The building in which currently has the control access point will be proposed to be demolished. The new control access point must be integrated in the new building or it can be placed independently but conceived in the same architectural manner as the new concept.

## i) urban regulations and restrictions;

To be seen in Annex no. 2 – General urban plan of Sanraieni – written part and drawing.

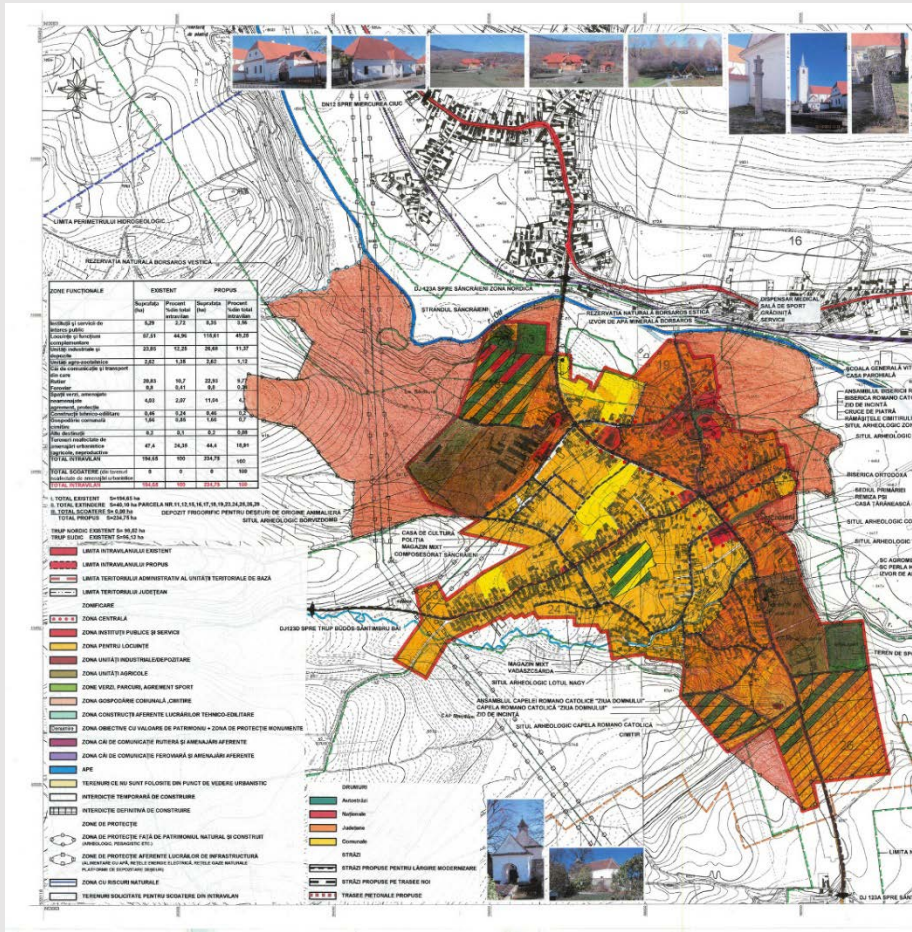
## j) historical monuments or protected areas.

The studied area has no historical monument nor is in protected historical areas. Also it is not included in environmental protected areas (Natura 2000).

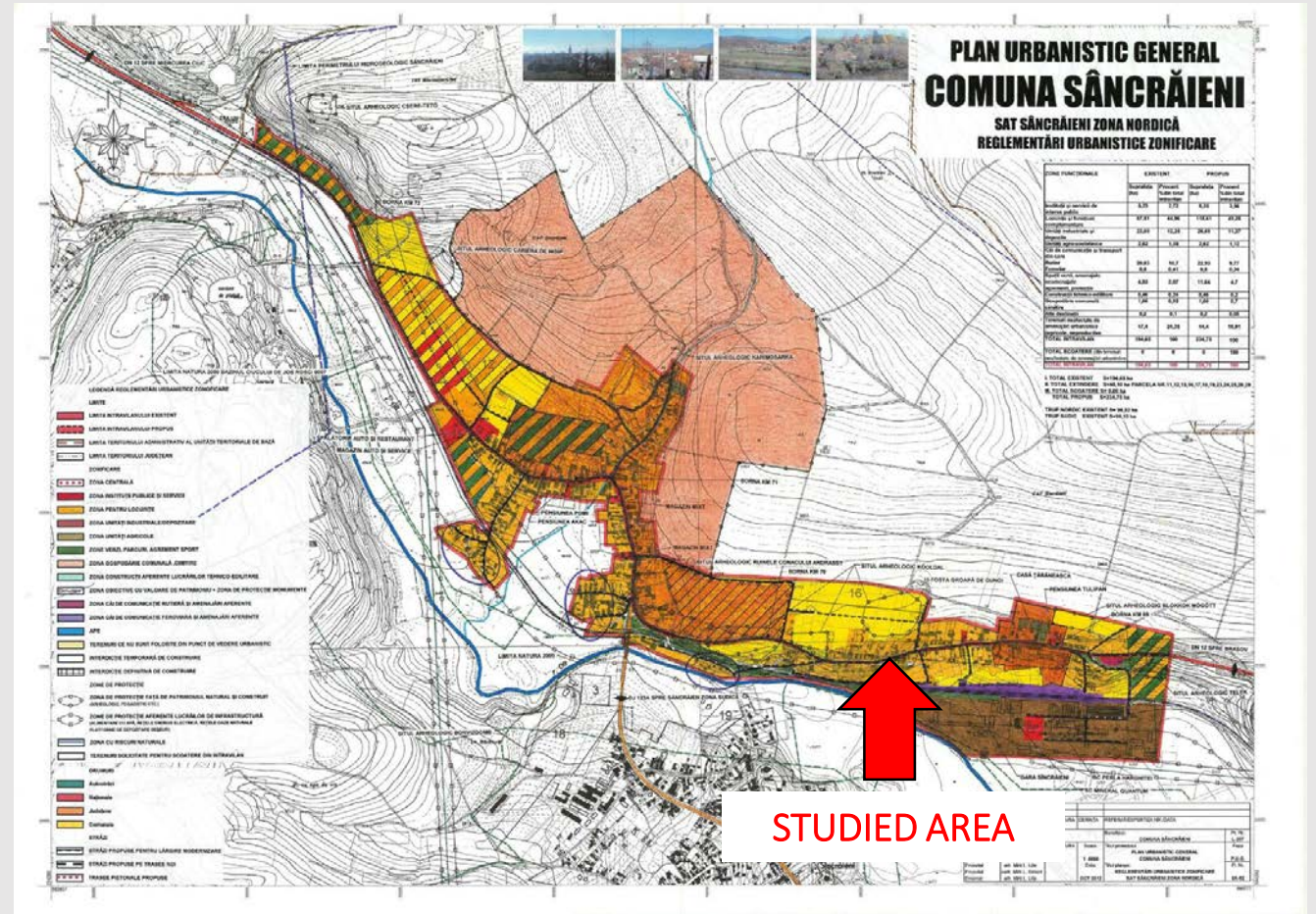


# Design brief

## 3.2.i1. Extract from General Urban Plan of Sâncrăieni village :



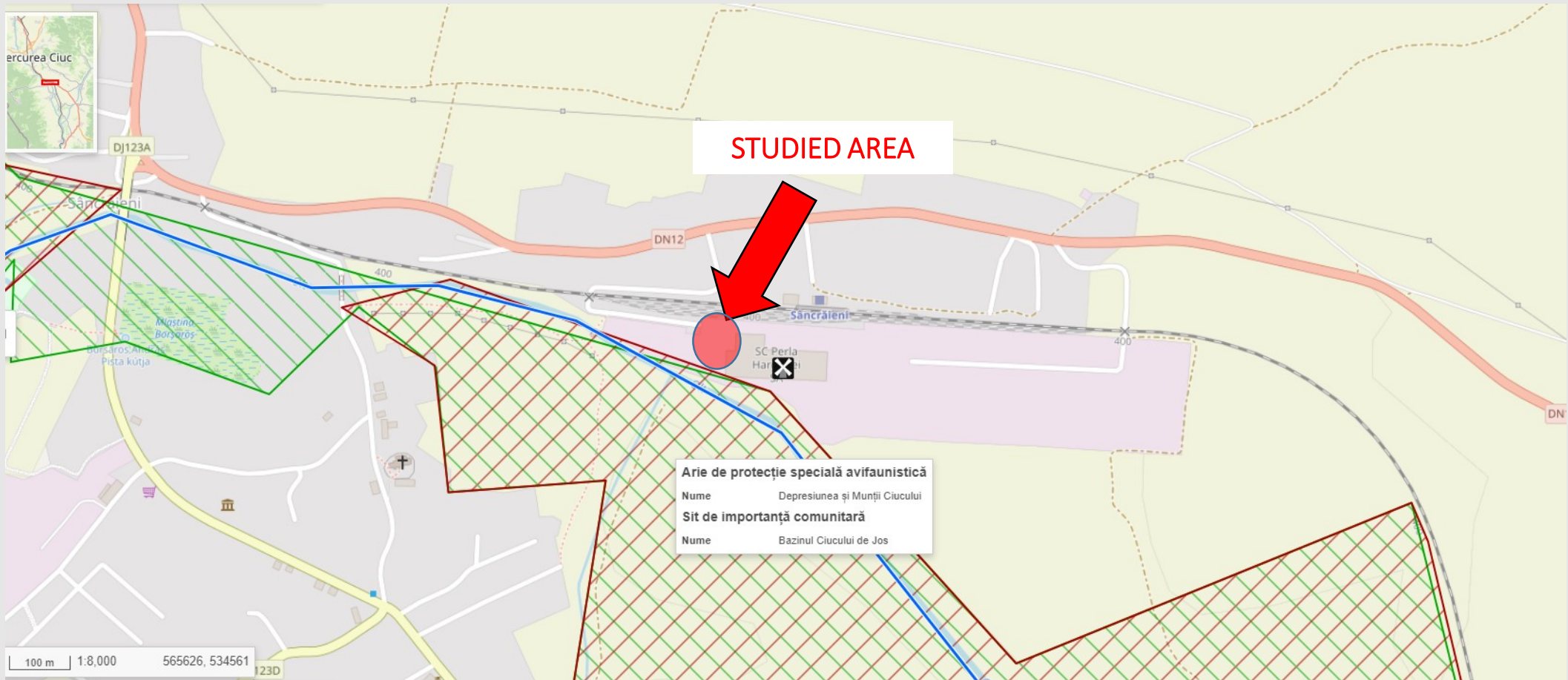
General Urban Plan of Sancriaieni village



General Urban Plan of Sancriaieni village

# Design brief

3.2.i1. Protected areas plan – the hatched areas are the protected natural zones. The studied area is right near the protected area, but it's not affected by it :



Map of the protected environmental areas in the region – our studied plot is outside the protected areas

# Design brief

## 3.3. Technical data :

### a) destination and functions;

The building proposed is an office building with secondary functions of technical spaces. The competition participant may propose other functions that underline the concept or that is necessary in order to fulfill the general ideas issued at the beginning of this brief..

### b) characteristics and technical parameters;

#### b.1. Climate conditions

The foothills of the Harghita Mountains give the intramontane depression zone climatic conditions with certain local peculiarities.

The average value of the vertical thermal gradient is 0.5-0.6 C / 100m;

The average annual air temperature is between 4 and 6 C;

The average air temperature in July is 16-18 C;

The average air temperature in January is -6; -8 C

Generally there are 160-165 days under freezing point each year. Also there are cloudy skies in an average of 155-165 day/year. Sunny skies are present in an average of 120 days/year.

The average annual amount of precipitation is about 540 mm, in June: 87.9 mm, in February: 17.8 mm. In winter, in the form of snow, snowfall lasts for 30-35 days.

#### b.2. Climatic loads

According to SR 10907/1-97 calculation temperature for winter: zone IV  $T_e = -21^\circ$ .

According to CR 1-1-3-2005, the value for characteristic load from the snow is  $s_{0,k} = 2.0 \text{ kN/m}^2$ , according to NP082-04, the pressure from the wind is  $q_{ref} = 0.7 \text{ kN/m}^2$ .

Calm prevails for a good part of the year (61%), and the average annual wind speed is 3.2 m/s.

In accordance with the seismic design norms, the peak value of the ground acceleration for design is  $a_g = 0.16g$ .

### b.3. Importance category and class

Both importance class and category of the buildings are NORMAL.

### c) equipment, technical specifications according to the function of the building;

The proposed concept must take in considerations the rules regarding sustainable, green buildings with nZEB equipment and envelope, proper insulation and functionality.

Technically the concepts will take in consideration the main prescriptions of Eurocods in regards of: sustainable architecture, positioning of the building versus sunlight, renewable energy systems, shading and lighting of the building, energy consumption, fire safety, etc.

### d) estimated number of people simultaneously present in the building;

The estimated users number is 60 people, but the concept will be dimensioned for a maximum of 100 people.

### e) functioning hours;

Maximum functioning hours is 8-10 hours/day.

### f) specific solicitations;

There are no restrictions regarding the number of spaces proposed, but needs to be in accordance with the functionality and the technical stipulations of an office building. The proposed functions must be correlated with the number of people present in the building .

The operational activities regarding the logistics department of the factory will remain in the existing office building.

# Design brief

Mandatory list of functions requested by the beneficiary:

Departments	Nr. offices	Nr people	Details	Position
<b>Management</b>	4	4	3 managers 1 secretary	New building
<b>Legal department</b>	2	4	1 legal manager 3 legal council	New building
<b>Sales department</b>	2	5	1 sales manager 1 sales executive 1 sales assistant 2 sales team	New building
<b>Marketing department</b>	2	5	1 marketing manager 3 assistant marketing 1 communications assistant	New building
<b>Supply chain department</b>	1	1	1 supply chain manager	New building

<b>Financial department</b>	1	1	1 financial manager	New building
<b>Financial department</b>	2	7	1 head accountant 5 accountants 1 archive/cashier	Existing building
<b>Controlling-analysis department</b>	2	4	1 chief department 1 financial controlling 1 financial analyst 1 controlling assistant	New building
<b>IT department</b>	1 + 1 deposit	4	1 IT manager 1 network administrator 1 IT specialist 1 digital assistant	Existing building

# Design brief

Mandatory list of functions requested by the beneficiary:

Supply chain department- logistics, technic, production	4	14	<b>1 logistics manager</b> <b>3 assistant manager</b> <b>1 supply specialist</b> <b>1 warehouse chief</b> <b>1 assistant warehousing</b> <b>1 glass production manager</b> <b>1 PET production manager</b> <b>1 water station manager</b> <b>1 Geologist</b> <b>1 security and insurance</b> <b>1 environmental specialist</b> <b>1 investments and reparations manager</b>	Existing building
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Human resources	4	5	<b>1 HR manager</b> <b>1 HR specialist</b> <b>1 benefits and compensations specialist</b> <b>1 HR business partner</b> <b>1 HR inspector</b>	New building
Auto fleet	1	2	<b>1 auto fleet employee</b> <b>1 traffic coordinator</b>	Existing building
Administrative department	2	4	Administrative personnel	New building

# Design brief

Besides the functions listed above, complementary functions will be taken in consideration, as the following:

Meeting rooms ( preferably 2 separate rooms which can be separated by flexible walls, maximum users 30-60 people )

Small meeting room ( 10 people )

Dining room ( 15-20 people )

Lunch room (in the existing building – 10 persons)

Bathrooms on each level for men and women

**Bathrooms on each level for physically challenged people**

Terrace / outside place for smokers

Recreation room

Control access

The room for control access can be part of the new building or can be an independent small building conceived in the same architectural manner.

## Technical spaces

Heating/cooling system room

HVAC unit

Fire detection system room

General electric panel

Fire hydrant room and water reservoir for hydrants (if necessary)

Cleaning accessories room on each floor

Archive – in the existing building

Server room – in the existing building

The above mentioned spaces and functions can be completed with other spaces or functions considered necessary in order to underline the main ideas of the concept.

# Design brief

Images of the studied area :

