# THE BUILDING OF A P + 1 HOUSE IN POLOVRAGI, GORJ COUNTY A AN AGROTOURISTIC PENSION REGARDING IT'S OMOLOGATION

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*The building of the personal estate house, P + 1, with agritourist pension destination, it will be an independent building, present in Polovragi, Gorj county. At the building construction it shall use ceramics mansions POROTHERM type with mortise, concrete steel checking table, coniferous wood framework and sheet zinc. Accordance with Law nr.10/1995 article and Rule about Country Check of Quality in Construction – HG no. 272/1994 was agreed check program at House P + 1 investment, in Polovragi, Gorj county an agritourist pension regarding it's homologation. Persistence structure at this construction have: - infrastructure: continuous foundation under walls, by homely concrete flange and by homely concrete socles with concrete steel centuridins at inferior and superior aspect; - suprastructure: lift masonry by ceramics blocks POROTHERM 30 and 25 type with mortise, with concrete steel core and two concrete steel transversal cadre, concrete steel checking table, coniferous wood framework, with sheet zinc coating*

***Keywords****: concrete steel, coating, foundation soil, framing, lift masonry, prestressed concrete, tie pieces between uprights, wall plate, battens steels.*

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## MATERIAL AND METHOD

To be able to construct a building, the identification data, main parameters of the project and construction design, documents presented at the examination, construction

materials, basic technique featuring the structure, construction's description and notices needed to build, are needful.

## RESULTS AND DISPUTATION

Habitation design P+1E, in Polovragi, Gorj county, concerning the approval (or validation) as an agritourist pension contained the following data required to construct:

**Justification Memoir**

a) General Data:

Investment name: habitation ground floor + 1 floor in Polovragi, Gorj county

b) Emplacement Data:

Lazea's family personality habitation will be placed on the family's private property. The field is aligned to the existent road and has access through an access road 3m width. The building's disposition will be made according the Urbanism's Certificate issued by Polovragi's mansion house.

c) Construction Works:

The building will be elevated on 2 floors with the following function:

Ground floor: access hall with stairs in lines, living room with kitchen, thermal plant, access terrace and living room binding terrace.

First floor: 3 bedrooms, 1 bedroom with personal bath, 2 bedrooms with common bath, 2 covered balconies, hall with access steelcase between the 2 floors.

The constructive system adopted will contain ferro-concrete frames with seal walling and POROTHERM interior division.

The seating will contain ferro-concrete, ferro-concrete board between ground and first floor, and between first floor and laft fitted with ferro-concrete balks and belts.

The roof will be a framework on seats on 4 waters with zinked sheet metal wrapping galvanised provided with chamfers and down-comers with the water drain in the personal enclosure.

The interior finishing will be habitual to the construction program and they were stipulated in architectural plans and sections. The external finishing are BAUMIT plasters made with 5 cm polystyrene, and at the sockets will be used halfstone plasters in vertical direction made with M100T mortar.

d) A.L.A Measures:

The building isn't fitted with A.L.A. shelter, because it doesn't have an undercraft, and the construction's area is <600mp, the built-up area is 120mp, and the total construction's area is 212mp<600mp.

e) P.S.I Measures:

The building according P118/99 is present in 2nd degree of fire resistance that represents minimal burning hazard. The entire lumber construction of the laft will be made infusible with (or by) approved infusible substances.

f) Utilities:

The construction will be branched to public utilities existent in the area, that means electrical energy and gas. Water supply will be made from 25m depth existent pit, equipped with a high-capacity and water pump. The building's warming will be made from a thermal central on gas BRAVA system, ROMSTAL furniture with high-drought.

**Technical Memoir-Structure**

**1) Work's Objective and General Requirements**

*1.1 General Data*

The present documentation debates in E.D.(Execution's Details) the structure's endurance of a new building in Polovragi city, Gorj county, on Lazea's private property terrain. The building destined to be a house serving as an agritourist pension and it contains a ground floor, first floor and laft. In the blueprint the building that will be built-up it's not brazed to another existing construction.

*1.2 Projection's Bases*

At the projection base were: the design's theme, architectural bets, frontages and sections characteristic properties.

Were respected the following technical prescriptions:

**P 2-85**- The normative concerning masonry structure's composition and calculus

**P 100-92/96**- The normative concerning the antiseismical buildings projection

**P 10-86**- The normative concerning the projection and execution of the construction's bricking

**STAS 10107/0-90**- The calculus and the composition of concrete, ferro-concrete, tabloid-up concrete structural elements

*1.3 The Base Technical Characteristic Properties*

I mention technical characteristic properties of the constructions:

- Concern class: **III –** normal concern, according P100-92/96 Normative
- Concern category: **C** – normal concern, according HG 7666/97
- Calculation wave zone: **C,$K_s$ = 0,20,** according P 100 – 92/96

Angle period: **$T_c$ = 1.5 sec**

- wave intensity : **8 (gradation MSK)**
- climatic province: **C** – snow, according STAS 10101/21 – 92
- aeolian province: **B** – wind, according STAS 10101/20 – 90
- frost depth: **90 cm,** according STAS 6054 – 77

*1.4 Check requirements of project*

Resistance project check is framing in A exactingness – resistance and balance at static, dynamics, seismic stresses and A1,A3 area – civil engineering with concrete, concrete steel, masonry and wood structure.

***2. Building description***

**Building emplacement** have an rectangular form and add - in forward part a first floor construction.

Design construction is arrange according Urbanism Certificate in court back part.

The building has measurements plan: 8,57m x 14.00 = 120mp

Land in plane, horizontal, stabile.

**Technical regime** – P + 1E, with 2,80m height ( free 2,62m)

Maximum crest altitude is 8,70m, beside banquette crest.

**Building destination** is for house, an agritourist pension regarding it's omologation.

**Building resistance structure** is made of:

- continuous foundation under walls;
- lift walls of blocks ceramics masonry POROTHERM 30 and 25 type with mortise, with concrete steel core bonded with two transversal cadre;
- concrete steel all – cast checking table;
- coniferous wood framework, on chair, with sheet zinc coating.

***3. Structure description***

*3.1 Infrastructure*

**Land nature** result from geo technical study namely:

- foundation land is made of dust clay and P + 1E construction it can direct base beginning with 110 cm depth from arrange land crest, if the foundation bottoms penetrate at least 30 cm in foundation good layer;
- ground water level is fleet, but it not affect the foundation solution at first floor construction;
- convention pressure calculi it was considered Pconv. = 180 Kpa.

**Foundations** are continuous under walls, made of foundation bottom of concrete Bc class 7,5 (B100, C6/7,5), 45 cm height and Bc 15 ( B200, C12/15), 130 cm height, with band at interior and superior aspect.

Concrete steel core anchor in socles indoors bands.

**Support plates paving** first – floor are made of Bc 15, 10 cm thickness steel with OB37 ø 6/20 cm net ( or STNB ø 5/10 welded net).

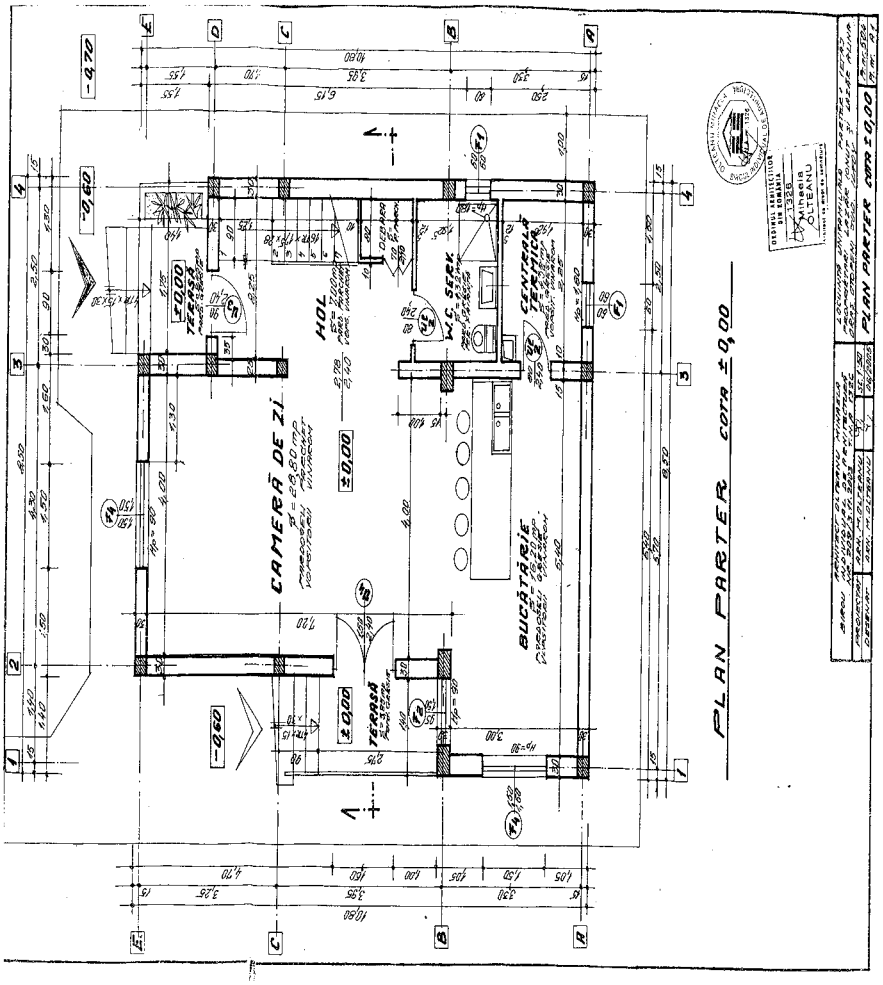
Plates will be cast over next layers overhand according as follow:

- compacted ground grating, compaction grade D = 95%
- compacted chad 10 cm
- extruded polystyrene 5 cm
- Kraft paper or polyethylene foil

*3.2 Superstructure*

**Walls** are made of lift masonry by ceramics blocks POROTHERM 30 type with mortise, atlas folio 250 x 300 x 238 mm for exterior and POROTHERM 25 with mortise, atlas folio 375 x 250 x 238 mm for indoor. Common mortar is M50 brand.

The interior compartment walls thickness is 12.5 cm are manufactured from POROTHERM 11.5 ceramic blocks with nut 500x115x238 formation.



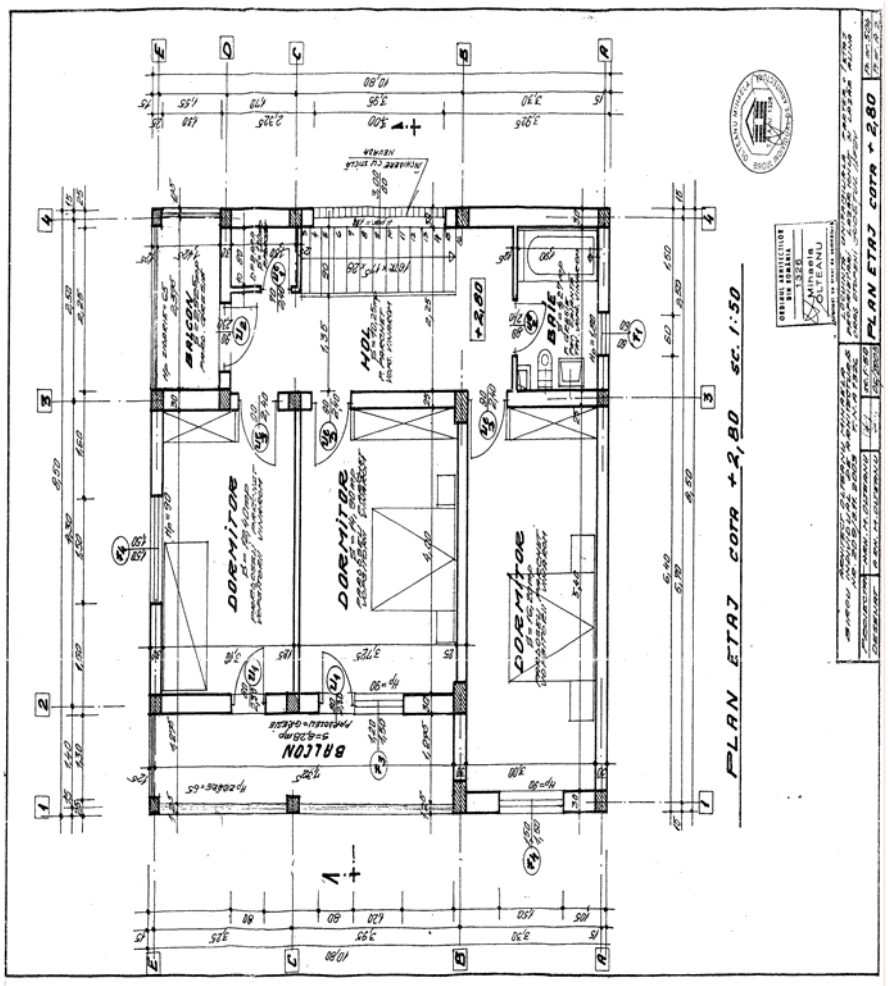

At the ground floor, the same walls are directly minded on the armoured plate bottom covering puncheon, and at the superior part will be interstratificated with M50 common mortar.

At the first floor the wall'srhickness is 12.5 cm and the they can be minded directly on the plates.

All separating walls will bound by tesere and satwhiskers ø 6/50 cm by the tensional walls.

**The cores and pillars** are made from Bc15(B200. C12/15) ferro-concrete and they assure the anti-seismic conformance. The cors and pillars will be solidified with contiguous masonry by catwhiskers 2 ø 6/50 cm, placed in horizontal masonry's construction joint and by concrete stud. At the core board level it bounds monolithic with ferro-concrete belt.

**The boards** are made from Bc15 monolith ferro-concrete, with lintel belts and bolks.




The board over the first floor is circular loft type.

The board over the ground floor has 13cm thickness, and at the first floor has 12cm thickness.

The boards will be concreted along with belts and balks in a singular round.

**Before concreting will be voided in boards the blanks required for the plants.**

**The lintels** of 12.5cm thickness walls are monoliths, with a 25cm resting length.

**The interior staircase** it's made from ferro-concrete monolith Bc15, and it bonds between first and ground floor.

**The frontages** will be thermal isolated with infusible polystyrene 5cm thickness, BAUMIT type, from -0.05m to +5.55m mark (or bench).

**Bulkhead** is framework type from coniferous wood , on chairs, in 4 waters, with zinc table shell. Bressummer will be anchor ceiling with bays strap above story with catwhisker ø 6/60 cm, bottoms will be anchor ceiling with bays 2 ø

6mm. At bridge will assure a thermal insulation of axtrude polystyrene and 3,5 cm bulk bit, with 10 cm mineral cotton wool.

**Al woody material will be incombustible.**

***4. Labour protection measures***

Duration execution works of this construction will respect „ Labour Protection General Rules" provisions approve by M.M.P.S and M.S with Order nr. 578/1998 and nr.5840/1998.

Labour protection measures of these works are current measures on building site.

Provisions in mentioned normative are not limited, those will be integrate by certain situations appeared on building site.

## CONCLUSIONS

1. Although is about a house project that it will be omologate as tourist pension in results obtained are more than conclusive for rural tourism participation and in other areas than those already known.

2. Effectuated study evidential of accession necessity and rural tourism organisation just in those conditions where is starting from a base that rival with other afford by traditional unit in dedicated areas.

3. Choice to practice rural tourism is demonstrate by studied case, starting from own house and agritourist pension omologation.

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