B21A - SUE

Preliminary evaluation - Description of the work

1- Description of building intervention

The intervention is aimed at using the whole available area on the parcels reported into SUE-B21A, including urbanization and road system works.

We have foreseen 3 buildings, functionally linked, with height variable from two to four storeys, depending on the roof pitch of 15° on the horizon. The roof has southern exposure and it's suitable for installation of solar panels for production of electric energy.

systems.

The garret will accommodate: Common services to all the buildings, such as laundries, washing hangings, store-rooms; One loft for each apartment; Private rooms functionally connected to the flats located below; Rooms for installation of the technological systems needed for transformation and distribution of the electrical energy produced by the solar panels; Rooms for the distribution of

Urbanization works include: Road connection between streets Piacenza and Mantova, and realization of a public garden on the area marked as Vi58; Creation of a parking lot marked as P35, on the area belonging to the Municipality.

The architectural solution is aimed at the utilization of the largest possible roof surface for installation of the photovoltaic system, which represents a gamble in terms of future employ of energetic technologies coming from renewable sources. This gamble will not appear so critical if we take into account the architectural historical past. Moreover the one-pitch solution is not so preposterous if the roof is harmonically linked to the building located below. Such an example already exists in Valenza in via del Castagnone, although it belongs to a far-off period and it's not

2- Heat insulation, sound-proofing, technological systems and renewable energies.

The buildings in the project have zero- or close to zero consumption.

Considering the derogation to the existing town-planning norms and the granted permission in terms of thickness of walls and roofs, the thermal-acoustic insulation system will be realised using very thick heat- and sound proof materials, suitable to grant the respect of the existing norms. We specifically intend to use insulating window and door frames with thermal-bridge-free shutters, extremely efficient ventilation system and other devices keeping the heat inside the buildings and

The air-conditioning system will be realised using large radiant surfaces at low temperatures ensuring a restrained energetic consumption.

The employ of photovoltaic system and geothermal power together with the possibility (still to be checked) of installation of just one power meter for the entire building complex shall ensure to have always sufficient energy through the absorption of picks and energy redistribution among

- On the whole we will need:
  420 solar panels corresponding to a surface of 720 mq. for production of 98.7 Kw/h ca. at pick.
  No. 22 geothermal probes of 100 ml each
  Heat exchanging pumps.

3- Plano-volumetric calculations

land owned-cadastral sheet n ° 24

sub.			cadastral area
1229	=	sqm	4.810,00
809	=	sqm	60,00
810	=	sqm	10,00
731	=	sqm	80,00
Total		sqm	**4.960,00**

Communal property-P35-sqm. **937,00**

Total area B21A SUE **5.897,00**

Maximum volume constructible	cubic meters	5.897,00	x	1,20	=	7.076,40
maximum area for buildings (ground floor)	sqm.	5.897,00	x	0,50	=	2.948,50
building land area	sqm.				=	2.655,00
area land to be donated to the City	sqm.				=	2.305,00
volume of buildings in the design	cm.	7.000,00		<		7.076,40
ground floor area in the design	sqm.	740,00		<		2.948,50

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Comune: VALENZA
Progetto: B21ASUE - STUDIO PER EDIFICI RESIDENZIALI PLURIFAMILIARI

Residenze "Cavallino II"

Oggetto: RELAZIONE

Scala: -

Tav. -