STUDY OF FEASIBILITY

for the objective

CONS.M.G304

REINFORCE AND MODERNIZATION TO THE HEADQUARTERS OF THE DIVISION FOR FOREIGNERS AND MIGRATION PROBLEMS – 14, ION CĂMPINEANU STREET –

- Head of the Design Group for Constructions Senior Commissary
  PĂTRULESCU M., (B.Sc.)
  Architect
  Signed, (Signature unreadable)

- Head of Complex Design
  ALEXANDRU C., (B.Sc.),
  Architect
  Signed, (Signature unreadable)

Designers in specialties

- Architecture
  ALEXANDRU C., (B.Sc.),
  Architect
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- Strength
  HORVAT F., (B.Sc.), Eng.
  Signed, (Signature unreadable)

- Power installations
  STRATULAT G., (B.Sc.), Eng.
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Heating installation and sanitation
  GAMENT FLOREA, (B.Sc.), Eng.
  Signed, (Signature unreadable)
Technical Memo

I. GENERAL DATA

1. Denomination of the investment objective
Reinforce and modernization to the headquarters of the Division for foreigners and migration problems, in 14, Ion Câmpineanu Street.

2. Code
CONS.M.G304

3. Main Principal of credits
Ministry of Interior

4. Principal of Credits – beneficiary of investment
Ministry of Interior
D G I.E.P. (GDCARP)
General Directorate for Computer aided records of Person

5. Location
14, Ion Câmpineanu Street, 1st District.
Bucharest

6. Necessity and opportunity of the investment:

6.1. Existing circumstances.
The building located in Ion Câmpineanu Street was assigned under the administration of the Ministry of Interior based on the Government Decision Numb: 1367 /2002. The said building is destined to the Division for foreigners and migration problems belonging to the Independent Directorate for Computer aided records of Person. The destination of the building was established by taking into account the necessity to assure some office spaces to work with the public, in accordance to the European norms and standards concerning the domain, for the foreigners that apply for granting or prolongation of the Right to stay in our country as well as the legitimate need to improve the labor conditions of the Division’s staff

For fitting out the existing housing office in accordance with the new functions, it is necessary to carry out some reinforce and modernization works to the building.
II. TECHNICAL DATA OF THE INVESTMENT.

1. Area and the legal status of the land area

The land at which place is located the central building body (pavilion) is an area of approximately 165 sq. m, being under the administration of the Ministry of Interior.

2. Main characteristic features of the land area from geophysics point of view

From the seismic point of view, the location is placed into the "C" computation zone having the index $K_s = 0.2$ and the corner period $T_c = 1.5$ seconds.

3. Main characteristic features of the building.

3.1. Description of the existing building

The building has a height regime of basement, ground floor, and seven (7) floors. The floor space is of 150.0 sq. m and the unfolded area is of 1,382.46 sq. m.

The original destination of the building was those of an office building.

The constructive system - strength structure - consists of carrying masonry work made out of bricks and pillars made out of reinforced concrete. The floors are reinforced concrete floors of monolithic type, excepting the last floor (over seventh /7th floor), where the floor is made out of wood. The roof joone is of framework-type made out of wood having the surface coverage of zinc-coated sheet iron.

The inner and outer carpentry is made out of wood. The entrance doors of the building are metallic.

The access in vertical plane is assured on stairs made out of reinforced concrete also by means of an passenger elevator for four (4) persons ($Q = 400$ Kg-force).

The building is endowed with sanitation, with plumbing and sewerage installations as well as with power installations for illumination and plugs, telephone installations also inner heating installations, as well. The thermal energy for heating the housing offices and for preparing domestic warm water for consumption are produced by its own thermal station with two (2) boilers of PAG-13 Metalica type, operating with natural gases as fuel.

The operating functions to be distributed on the levels/floors are suggested as follows.
3.2 Technical condition of the building.

The major earthquakes faced in years 1977, 1986, 1990 caused damages and deterioration relatively insignificant to the building, namely: fissures into the lintels of gaps, fissures into the windows’ parapets. Over and above those deterioration of the structure elements it was established important deterioration caused by wear and tear due to the time; deterioration of the roof dome that caused strong infiltration of rainfall water up to the last floor level. The last maintenance work to the building was carried out in 1996 consisting in remaking finishing as well as repairing installations. The technical expert examination was achieved in accordance to the provisions of the “Norm for seismic proof design of the buildings” P100-92 (with “Completion and modification of chapters 11 & 12” approved by the Order of M.L.P.A.T Numb. 71/NI October 7, 1996) as well as of the technical specifications being in force in December 2002.

(M.L.P.A.T = Ministry of Public Works and Territory Planning/MPWTP)

The building was executed during 1938. The technical expert examination has established that the design that was drawn up in accordance to the norms & standards being in force at the specific time presents nowadays some infringements evident against the provisions of current specifications (P2-85 and P100-92). Out of the review of the shape in plane of the building, of the main structural characteristic features of the building also out of the estimate valuation of the level of seismic proof assurance it resulted out the fact that the present structure is unsuitable for the seismic zone “C” (8 – on the M.K.S. scale). The qualitative valuation, the rated degree of seismic proof assurance, as well as the technical condition of the building have determined the building to be framed into the Rs II seismic risk class, corresponding to the constructions where the probability of collapse is reduced /small but there are anticipated some major structural deterioration on incidence of the design earthquake.
3.3. Intervention works suggested.

It should be executed an intervention of a 2-type aiming to secure the building. Such intervention consists in strengthening the structure elements overall, by increasing the strength, the stiffening also the ductility of the existing structure elements.

The intervention for strengthen the building should include following minimal measures:

- strengthen the girders made out of carrying masonry with kernels out of reinforced concrete
- upholster with concrete some pillars and beams made out of concrete

In order to assure optimal circumstances for using the housing offices it should be executed following construction works:

- remake the roof/dome of framework-type made out of wood having the surface coverage of sheet iron
- remake completely the inner installations
- replace the equipment out of the thermal station

III ESTIMATE OF WORKS*

(Prices/costs – February 2003 – thousands ROLEI / US $)****

For valuation purposes of the recovery works to the constructions it should be considered a replacement value \( V_1 \) (by new buildings) of 470 - EUR /sq. m. Such value was established by the Law Numb. 27 /1994 concerning the local taxes and duties, republished, modified and completed by the OUG Numb. 62 / 1998 and OUG Numb. 15 / 1999, first (!) group.

(OUG = Emergency Ordinance of the Government /EOGi)

For the modernization, fitting out, repairing and strengthen works to the constructions existing it was considered an investment value of maximum sixty percents (60 %) of \( C + 1 \). Such value was established in accordance to the Law Numb. 27 /1994, seventh (VII) group also of the conclusions of technical expert examination that has been carried out to the construction.

The valuation of the strengthening works was carried out in accordance to the conclusions of technical expert examination of the objective.

The values calculation was carried out to an exchange rate ROLEI / EURO of 35.500 (thirty-five thousand five hundreds) / 1 (one), valid on the 27th day of February 2003.
- \( A_0 \) - unfolded area = 1,382.46 sq. m

\[ V_i = 1,382.46 \text{ sq. m} \times 470 \text{ EURO/sq. m} = 645,960 \text{ EURO} = 22,922,000 \text{ thousands ROLEI} \]

- strengthening works to the structural elements of the building:
  \[ 25 \% \times V_i = 161,490 \text{ - EURO} = 5,732,900 \text{.0 thousands ROLEI} \]
- assurance of non-structural elements, securing equipment:
  \[ 15 \% \times V_i = 96,894 \text{ - EURO} = 3,440,000 \text{.0 thousands ROLEI} \]
- recovery works
  \[ 20 \% \times V_i = 129,193 \text{ - EURO} = 4,586,350 \text{.0 thousands ROLEI} \]

### IV GENERAL ESTIMATE OF INVESTMENT

**Prices/costs - February 2003 - thousands ROLEI / US $**

<table>
<thead>
<tr>
<th>Crt. Numbr.</th>
<th>Denomination of the Chapters for expenses</th>
<th>Value Total</th>
<th>auctioned Value Total</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Thousands EURO</td>
<td>Thousands ROLEI</td>
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<tr>
<td>Part I. Chapter 3: Costs related to the design and technical assistance</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.1</td>
<td>Land area studies</td>
<td>10,000.0</td>
<td>10 000.0</td>
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<td>3.2</td>
<td>Obtaining endorsements, agreements warrants licenses</td>
<td>30,000.0</td>
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<td>3.3</td>
<td>Design</td>
<td>710,000.0</td>
<td>710,000.0</td>
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<td>3.4</td>
<td>Organizing auctions /bids</td>
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<td>3.5</td>
<td>Consulting</td>
<td>71,000.0</td>
<td>2,000</td>
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<tr>
<td>3.6</td>
<td>Technical assistance</td>
<td>71,000.0</td>
<td>2,000</td>
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</table>

Chapter 4: Costs related to the fundamental investment

| 4.1 | Strengthening structural elements | 5,732,900.0 | 5,732,900.0 | 161,490 | 161,490 |
4.2 Assuranse of non-structural elements 3,440,000.0 3,440,000.0
96,894 96,894

4.3 Recovery works 4,586,350.0 4,586,350.0
129,193 129,193

4.4 Endowment 5,535,000.0 5,535,000.0
155,915 155,915

4.5 Equipment for the heating station 500,000.0 500,000.0
14,085 14,085

4.6 Erection of equipment 15,000.0 15,000.0
423 423

Chapter 5
Other costs

5.1 Organization of the building site 426,000.0 426,000.0
12,000 12,000

5.2 Commissions and fees/charges 165,111.0 -
4,651 -

5.3 Sundries and unforeseen 990,639.0 -
27,902 -

TOTAL GENERAL 22,292,000.0 22,292,000.0
627,980 590,300

out of this amount C + M (construction + erection) 14,200,000.0 400,000

V. MAIN ECONOMIC INDICATORS

1 Total value of the investment thousands ROLEI 22,292,000.0**
EURO 627,980

out of this amount:
Construction – erection thousands ROLEI 14,200,000.0
EURO 400,000

** The above-mentioned amount is confidential and should be indexed in accordance to the future evolution of prices.

2. Phasing of the investment:

<table>
<thead>
<tr>
<th>Year</th>
<th>INV C+M</th>
<th>thousands ROLEI</th>
<th>thousands EURO</th>
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<td>1st year</td>
<td>9,200,000</td>
<td>5,900,000</td>
<td>259,155</td>
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</table>
VI. RISK FACTORS

The seismic load corresponding to the corner period $T_c = 1.5$ seconds also to the "C" calculation seismic zone, in accordance with the provisions of the Norm P 100-92.

VII. FINANCING THE INVESTMENT

The financing of the objective should be performed by funds obtained from the State Budget as well as by funds raised legally with such destination, in accordance to the lists of investments approved in accordance to the Law.

I, the undersigned Cîmpeanu Raoul a licensed sworn translator with Numb: 1154 do hereby certify this translation to be a true & accurate copy of the document in the Romanian language, which was endorsed by me.

Licensed sworn translator.

[Signature]

3 APR 2003