1. Basic information
1.1. Desiree Number: PL01.06.02.01
1.2. Title of the project: Ring road of Zamosc
1.3. Sector:
1.4. Location: Poland, Lubelskie Voivodship, town of Zamosc

2. Objectives
2.1. Wider objective:
To strengthen the economic and social cohesion of Lubelskie voivodship through the provision of transport infrastructure.

2.2. Immediate objectives:
Creating conditions for the development of enterprises and jobs in the town; increasing municipality budget income; facilitating transport access to the Polish-Ukrainian border crossings at Hrebenne and Zosin; the more efficient operation of transit traffic and trade with Ukraine; the improvement of traffic conditions and road safety (better access to “Old industrial zone” and the biggest housing district of the City) within the limits of the Town of Zamosc; improvement of the condition of the natural environment.

2.3. Accession Partnership and NPAA Priority:
The project responds to the medium term priority identified in the AP: developing national policy for economic and social cohesion and preparing for the implementation of regional development programmes as well as Community Initiatives. It also corresponds with the NPAA priority "Regional and cohesion policy".

2.4. Contribution to the Preliminary National Development Plan:
The PNDP has a priority “Strengthening development potential of regions and counteracting marginalisation of certain areas. One of the proposed measures under this priority is “Development and modernisation of infrastructure serving to strengthen competitiveness of the regions”. It identifies co-financing of regional transport infrastructure as a principal element in building endogenous potential for economic development and regional competitiveness. The project is also in line with the operational programme for the Lubelskie voivodship. It will be implemented under the OP priority “development of regional infrastructure” and will aim at upgrading access to areas and localities in the region, allowing for the creation of added value within the regional and local economy.

2.5. Cross Border Impact: Not applicable

3. Description
3.1. Background and justification:
The Lubelskie voivodship is an agricultural region characterised by one of the lowest figures in Poland for GDP per capita, a low level of urbanisation and a predominantly rural population (53%). At the end of September 2000 the unemployment rate in the region was of 13.2%. A specially high level of unemployment is observed in the towns which were capitals of the smaller voivodships (till the end of 1998) under the former administrative division (Biala Podlaska, Chelm and Zamosc). The long-term goal of the Regional Development Strategy has been formulated as follows: “Achievement of permanent economic development by utilising the favourable geographical location of the region as a platform for co-operation between Western and Eastern Europe”. Located along the expressway Warsaw-Lublin-Hrebenne (Polish-Ukrainian border and 60km from the Hrebenne border crossing), Zamosc has a demographic and economic potential allowing it to be one of the regional logistic centres of Polish-Ukrainian co-operation. However, additional infrastructure investments are needed. Zamosc has 69,000 inhabitants, covers 30.5km² and is one of the most densely-populated cities in Poland (2260 people/km²). Investment areas are available on the north-eastern periphery but these need to be provided with suitable transport accessibility. The necessity of new investment areas for SME results from the fact that the unemployment rate in Zamosc (16.2 %) is one of the highest in region. The building of the 3.7km Hetman Ring-road in Zamosc will enable the creation of about 30Ha of new investment sites in which new firms working in the servicing of transit traffic and trade and production with the Ukrainian market should locate. It is foreseen that about 40 enterprises with 400 employees can be set up during 5 years after termination of the investment. Since 1999, Zamosc has been constructing a sewer system and storm drainage in this part of town. Two sections of the Hetman Ring-road
of 2.8km were constructed in the years 1992-1993. A section of 3.7km of the 3rd stage of the ring-road remains to be constructed within the Phare 2001 framework. On completion, the ring-road will be incorporated into expressway S-17, part of the Via Intermare which connects the Baltic Sea and Black Sea via one of the biggest Polish-Ukrainian border crossings at Hrebenne: Rawa Ruska (60 km from Zamosc). The new Hetman Ring-road will facilitate the access of Lublin voivodship to the Polish-Ukrainian border crossings in Hrebenne and Zosin and will increase co-operation of regional firms with Ukrainian partners (120 km from Zamosc is one of the biggest Ukrainian cities, Lvov, with 800.000 inhabitants, and 150km from Zamosc is another Ukrainian regional centre, Lutsk, with a population of 220.000 inhabitants). The construction of the Ring-road will also increase transport safety in the City and protect the Old Town in Zamosc, which is entered on the UNESCO World Heritage List.

3.2. Linked activities:
Various activities are connected with the planned project:

a) the sewer system and storm drainage have been built since 1999 in that part of the city, within a long-term investment programme realised from the budget of Municipality of Zamosc and credit from the National Fund for Environmental Protection and Water Management.

b) in the years 1992-1993 two sections of the Hetman Ring-road of 2.8km were constructed from Town own budget.

c) since 07.07.2000 Zamosc has been co-operating with Schwabisch Hall District (Baden Wurtemberg) and Burgenland in Austria on a project “Organisation of the consulting network for small and medium-sized enterprises” within the ECOS-Ouverture programme. In compliance with Phare contract N°00-0044 with the EC, the project will be realised by 30.06.2002 and the following activities connected with project application will have been undertaken: the devising of a concept for activating areas along the ring-road and the neighbouring broad-gauge railway LHS connecting Upper Silesia (industrial region in south Poland) with railway system of Ukraine and Russia, and the promotion of Zamosc as a place of effective investment.

d) the town of Zamosc has worked with the Zhovkva Region of Ukraine and the City of Schwabisch Hall in implementing the TACIS Micro Project “The Royal Route. Partnership of historic cities for crossborder tourism”. In March 2000 the partners sent an application to the European Commission for co-financing of a continuation of that project within the TACIS Cross-Border Co operation Small Project Facility. The project aims at the promotion of tourism along the historic “Royal Route” on both the Polish and Ukrainian sides, with the use of German experiences. The express road S-17 goes along the historic Royal Route. The ring-road will become part of expressway S-17.

e) the project entitled the “Postgraduate Crossborder Tourism Study” financed from Phare Credo funds is at the stage of finalisation. The Project aims at instructing the staff which will set up, manage and operate border tourist movements.

f) the modernisation and development of the border crossings at Hrebenne – Rawa Ruska on the expressway S-17 will also be an important factor in the effective use of the ring-road. The Border Crossings Authority in Lublin has submitted an application for the co-financing of this operation from Phare 2001 (CBC Crossborder) funds,

g) an additional activity concerns resolution of the City Council N° XV/236/99 on real-estate tax discount, offers such discount to firms which create new jobs in the town.

3.3. Results:
- providing for about 30 ha of new investment areas for economic activities, and as a result economic activation of the area.
- removing the transit traffic from the Old Town, estimated at 1000 vehicles per hour average from Wojska Polskiego St and Peowiaków St and, as a result, taking the transit traffic about 3 km away from the Old Town in Zamosc, inscribed on the UNESCO World Heritage List,
- improvement of the traffic flow in the City and a shortening of the transit time through the City by about 15 minutes,

3.4. Outputs:
- a modern 3.7 km road with 3 small roundabouts, complying with the EU requirements.
- rebuilding 1.5 km of the power network
- 1.2 km of storm drainage Ø 1400 under the constructed ring – road
- 3.7 km lighting along the constructed road
• 3.7 km of the pavement 2.25 m width

3.5. Inputs:
Within the Phare 2001 project it is proposed to build the section of the Ring Road from Lubelska Street to Starowiejska Street (along Północna Street) with 3 small roundabouts (in Lubelska St. Powiatowa St. and Starowiejska St.). A 7 m wide single-carriageway is planned. The roadway edged with kerbs will consist of three cement stabilised layers and a road surface of 3 bituminous layers. There will be a hard shoulder and a 6 m wide green belt on the left side. The wheel load capacity will be consistent with the standards of the European Union. On the section between Powiatowa and Starowiejska St. the 1.2 km of storm drainage Ø 1400 will be built under the constructed ring road. On the rest of ring road the surface drainage system (with the use of open ditches) will be applied. Along the ring road the lighting system will be introduced.

4. Institutional Framework
• The beneficiary of the project is the Municipality of Zamosc
• The Employer is the Municipality of Zamosc
• Supervising engineer will be appointed within tender procedure
• Investment owner after project realisation - the Municipality of Zamosc
• The investment will be conducted in compliance with the Decentralised Implementation System regulations – “Practical Guide to Phare, Ispa & Sapard contract procedures”
• The project implementation will not result in any changes in the institutional framework describe above.

5. Detailed Budget value in MEuro

<table>
<thead>
<tr>
<th>Sub-projects</th>
<th>Phare Support</th>
<th>National Cofinancing</th>
<th>IFIs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>3.14</td>
<td>1.86</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.14</td>
<td>1.86</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Polish co-financing will be available.

6. Implementation Arrangements
6.1. Implementing Agency:
PAO: Vice - Minister in the Ministry of Regional Development and Construction, Wspolna 4 St., 00-926 Warsaw, phone: +48 22 661 91 19, fax: +48 22 661 91 45.
Implementing Agency: Polish Agency for Regional Development, Zurawia 4a St., 00-503 Warsaw, Phone:+48 22 629 28 88, Fax: + 48 22 627 22 46.
6.2. Twinning: not applicable
6.3. Non-standard aspects: Not applicable. DIS regulations of the “Practical Guide to Phare, Ispa & Sapard contract procedures” will be closely followed.
6.4. Contracts:
Contract 1 (works) = 4.85M€ - Contract 2 (engineer) : 0.15M€.

7. Implementation Schedule
7.1. Start of tendering/call for proposals: 1st quarter 2002
7.2. Start of project activity: 2nd quarter 2002
7.2. Project completion: 3rd quarter 2004

8. Equal of opportunity
During the implementation of the project the rules on equal opportunities and the equal participation of women and men in a project will be respected.

9. Environment
The basic conclusions on the influence of the project on the natural environment are that: realisation of the ring-road may have a potential influence on the environment during the construction works. Short-term disadvantages may occur result from the operation of building machines. However, the investment will have a long-term positive impact in the protection of underground waters as a result of a new technology in drainage, removal of floodwaters and the lowering of the level of the water table. Moving the traffic outside
the densely built-up area will result in the reduction of particulate emissions, exhaust gases and noise in the inhabited part. The sewage treatment plant will increase its activity by 5 thousand m$^3$, i.e. about 35% as a result of the creation of the business area along the Hetman Ring-road. The EIA is available at the beneficiary’s offices.

10. Rates of return
Basic assumptions of economic and financial analysis:
The costs incurred after the investment is put into use will be connected with the ongoing repairs, snow removal, maintaining of green space, maintaining and operating traffic lights and resurfacing. The expenses of the road renewal will increase due to “road ageing”.
The incomes needed to estimate FRR and ERR will consist of:
a) the incomes directly from the operating of the road (advertisements, temporary occupations of road lanes) – relatively low
b) the incomes of the Municipality of Zamosc and Voivodship from business activities developed along the road – real estate taxes and a share of income taxes
c) alternative incomes:
   – saving of expenditure connected with reduced hospitalisation – a reduction in the number of hospital treatments connected with accidents – by 20 %, i.e. about 25 casualties
   – saving of driving time. It is predicted that the density of the road traffic after the investment is put into use will be 1000 vehicles per hour, increasing by 4% yearly.

FRR = 7.93%  ERR = 48.44%
The feasibility study is available at the beneficiary’s office.

11. Investment Criteria
11.1. Catalytic Effect:
Phare support will be conducive to achieving economic and social cohesion goals in the Lubelskie voivodship; goals which otherwise could only be attained after a much more extended period of time and on a more modest and less efficient scale

11.2. Co-financing:
The project is co-financed by the Polish partners

11.3. Additionality:
The Phare project is not displacing other financing sources, especially from the private sector and IFI system, it is co-financing identified priorities and not taking the place of national resources

11.4 Project readiness and size:
The project will be ready for contracting and disbursement, as the activities will meet all conditions for cofinancing by the start of project implementation. The feasibility studies and environmental impact assessment are ready.
Technical documentation will be prepared by May 2001

11.5. Sustainability:
The project will contribute to the long-term sustainable development of the region, as described in the Lubelskie voivodship Operational Programme. After implementation all maintenance costs related to investments will be covered by the beneficiary.

11.6. Compliance with State Aid Provisions:
All aspects of the project will be developed with respect to the state aid provisions of the Europe Agreement

11.7. Contribution to the Preliminary National Development Plan:
The project is in line with the Preliminary National Development Plan and as such will contribute to increased economic and social cohesion of the country and region.

12. Conditionality and sequencing
Co-funding of specific activities will be conditional on:
• co-financing of project by the beneficiary;
• maintaining timetable set in the programme;
• appropriate environmental impact assessments and feasibility studies conducted and accepted by the start of project implementation;
• completion of land acquisition before the start of tendering;
• obtaining building permission before the start of tendering;
• all tendering, contracting, reporting and monitoring conditions met;
• selecting contractor enable for proper realisation of works.

Benchmarks:
• Financing memorandum signed by end of 2001
• Construction designs prepared by May of 2001
• Preparation of tender documentation by 3rd quarter of 2001
• Resources earmarked for Phare co-financing of programme reach National Fund in January 2002
• Beneficiary contracts project activities by 2nd quarter of 2002
### Annex 1: Logframe planning matrix for project

**End Contracting:** 15/12/2003 - **End Disbursement:** 15/12/2004  
**Ring road of Zamosc**

<table>
<thead>
<tr>
<th>Wider objective:</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
</table>
| Increased socio-economic cohesion in Lubelskie voivodship | Increase of regional GDP per capita  
Decrease of unemployment rate | Main Statistical Office | Fast track growth of Polish economy  
Implementation of active forms of combating unemployment |

<table>
<thead>
<tr>
<th>Immediate objectives</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumptions and risks</th>
</tr>
</thead>
</table>
| creating the conditions for the development of the enterprises and jobs in the town  
increase of municipality budget incomes  
making easier access for Lublin Voivodship to border crossings in Hrebenne and Zosin,  
more efficient operation of transit traffic and trade with Ukraine,  
improvement of transport conditions and increase in road safety  
improvement of condition of natural environment | 8 enterprises and 160 new jobs created 2 years after termination of investment and finally about 40 enterprises and 400 new jobs created 5 years after termination incomes from real estate taxes and shares of income tax – 94 000 Euro after 2 years and 236 000 Euro after 5 years increased number of vehicles crossing the Polish-Ukrainian border reduction in number of car accidents and collisions in the town about 20 % after 1 year  
20% fewer hospital treatments resulting from accidents  
reduction of noise and emissions of particulates in inhabited parts of town (where now transit is realising) about 60% | REGON statistics on businesses database of Municipality of Zamosc  
direct measurement and Statistical Office statistics  
Police database  
direct measurement of environmental service  
direct measurement of distance | Full realisation of the Strategy of Lublin Voivodship Development, including especially local development programmes  
Effective implementation of active methods of decreasing of unemployment |

<table>
<thead>
<tr>
<th>Results/Outputs</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumption and risk</th>
</tr>
</thead>
</table>
| Providing new investment areas for economic activities  
Reduced journey time through the town  
Removing transit traffic from the Old Town  
Modern road with roundabouts, drainage system, lighting system and pavements  
Rebuilt power network | 30 ha area for the production-service activities accessed; average time of travel – shorter by 15 minutes; increase of ESS from 9,6 km/h to 45 km/h; 1000 vehicles per hour removed from the Old Town; 3.7 km of road, 1.2 km of drainage, 3.7 km of lighting, 3.7 km of pavement; 1.5 km of rebuilt power network | land registry of Municipality of Zamosc  
database of Zamosc Power Company  
direct measurements  
direct measurements and data of Zamosc Municipality | Realisation of ECOS Ouverture project  
Finding new investors for investment area  
Fulfilling all legal aspects |

| Activities/Inputs: | | |
|-------------------|| |
| Construction of modern road of 3.5 km with 3 small roundabouts in Lubelska, Powiatowa and Starowiejska Streets., 1.2 km of storm drainage, 3.7 km of lighting, 3.7 km of pavements. Value of project : 5000 000 EUR , Phare co–financing 3140 000 EUR. | | |

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**Annex 2-4: Cumulative implementation, contracting and disbursement schedule**

<table>
<thead>
<tr>
<th>Date of preparation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12/2000</td>
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<table>
<thead>
<tr>
<th>Zamosc-Construction of the “Hetman Ring-road”</th>
<th>Planning period</th>
<th>Cost estimate (Phare in MEURO)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002-2004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLANNED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IV’01 I’02 II’02 III’02 IV’02 I’03 II’03 III’03 IV’03 I’04 II’04 III’04 IV’04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I  II III IV V VI VII VIII IX X XI XII XIII</td>
<td></td>
</tr>
<tr>
<td>Implementation schedule</td>
<td>D  C C/I I I I I I I I I</td>
<td></td>
</tr>
<tr>
<td>Contracting schedule*</td>
<td>3.14</td>
<td></td>
</tr>
<tr>
<td>Disbursement schedule</td>
<td>0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.80 3.14</td>
<td>3.14</td>
</tr>
</tbody>
</table>

Legend: D = design of sub-project / C = tendering and contracting / I = contact implementation and payment
Annex 5. Summary of Feasibility study

1. Projected budget and funding sources (Euro)

<table>
<thead>
<tr>
<th></th>
<th>PHARE funding</th>
<th>Co-financing by the City budget</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>3 140 000</td>
<td>1 860 000</td>
<td>5 000 000</td>
</tr>
<tr>
<td>Share ( % )</td>
<td>62,8</td>
<td>37,2</td>
<td>100,0</td>
</tr>
</tbody>
</table>

2. Funding schedule by years (Euro)

<table>
<thead>
<tr>
<th>Period of implementation</th>
<th>PHARE 2001</th>
<th>City budget</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>900 000</td>
<td>300 000</td>
<td>1 200 000</td>
</tr>
<tr>
<td>2003</td>
<td>1 200 000</td>
<td>700 000</td>
<td>1 900 000</td>
</tr>
<tr>
<td>2004</td>
<td>1 040 000</td>
<td>860 000</td>
<td>1 900 000</td>
</tr>
<tr>
<td>Total</td>
<td>3 140 000</td>
<td>1 860 000</td>
<td>5 000 000</td>
</tr>
</tbody>
</table>

3. Financial ability of Investor (Municipality of Zamosc)
The Municipality of Zamosc is able to realise the planned investment within the projected budget for the period of 2000-2004 in the scope of its own share in planned investment. The income of the Municipality systematically increases which results in a rise of available funds to be utilised for investment. Assuming 62,8% share of PHARE 2001 in construction of Hetman ring road indebtedness of the Municipality of Zamosc will not increase. The planned investment (the scope financed by Municipality) constitutes 10,3% of value of the investment financed by the means of the City budget projected for 2002, 19,1% for 2003 and 19,7% for 2004.

The financial and economical analysis were based on “Guide to Cost- Benefit Analysis of Major Projects”
The following items have been used in order to prepare financial and economical analysis:
- time limit adopted for projected cash flow has been specified for 20 years from the moment of taking over the investment by user
- income and expenditures have been stated in fixed values in PLN and final ratios have been given in EUR
- the cash flow projection does not include inflation rate
- the discount rate has been estimate at the level of 9,7%
- 1 EUR = 4 PLN
- new companies along the Hetman ring road will be organising gradually after termination of investment – the optimal number will be achieved in 5 years after termination
- the predicted number of new companies was estimated on the base of the data from existing (functioning) section of Hetman ring road.

4.1. Financial Rate of Return
Annual revenue is comprised of the following:
1. Annual revenue on advertisement estimated at the amount of 1 900 EUR
2. Annual revenue on tax on real estates – approx. 30 ha of new investment areas will be providing gradually during 5 years after termination of investment – full effect in 5-th year – 33 750 EUR
3. Annual revenue on tax on real estate adopted under industrial and service buildings – approx. 3 ha – full effect after 5 years – 84 000 EUR
4. Annual revenue of the Municipality of Zamosc and Voivodship budget in the personal income tax with reference to the increase of employment (400 new jobs as a full effect after 5 years) – 106 000 EUR
5. Annual revenue of the Municipality and Voivodship in the income tax on profits with reference to development of new companies (SME) – it is estimated to reach an amount of 12 000 EUR

Annual exploitation expenditures comprises the following:
1. Current repairs - 9 500 EUR
2. Snow removal - 10 650 EUR
3. Green belts maintenance - 2 300 EUR
4. Maintenance and use traffic lights - 2 300 EUR
5. Maintenance of the road surface - after 10 years of use - 21 700 EUR
6. Costs related to maintenance of the investment during its realisation - 15 000 EUR

4.2. Economic Rate of Return (ERR).
The social and economical benefits comprise the following:
1. Savings of the Employment Office under not repaid unemployment benefits. It is estimated to reach an amount of 96 000 EUR annually for 5 years.
2. Reduction of number of car accidents as a result of the improvement of the road traffic and road capacity – estimated benefits will reach 132 000 EUR
3. Estimated economic value of the time saved due to shortening (15 minutes) of the transit through the City - 986 000 EUR yearly - full effect in 5-th year after termination of investment.

<table>
<thead>
<tr>
<th>RATIOS</th>
<th>Data for the road sector in EU (“Guide to Cost.....”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRR Financial Rate of Return</td>
<td>minimum -0,60%  Average 3,93%  Maximum 10,49%</td>
</tr>
<tr>
<td>MFRR Modified Financial Rate of Return</td>
<td>8,96%</td>
</tr>
<tr>
<td>FNPV Financial Net Present Value</td>
<td>-843507 PLN</td>
</tr>
<tr>
<td>FNPV</td>
<td>-210877 EUR</td>
</tr>
<tr>
<td>Discount rate</td>
<td>9,71%</td>
</tr>
<tr>
<td>Projected Period of Return</td>
<td>12.08 years</td>
</tr>
<tr>
<td>ERR Economic Rate of Return</td>
<td>48,44%  Maximum 94,65%</td>
</tr>
<tr>
<td>ENPV Economic Net Present Value</td>
<td>27718536 PLN</td>
</tr>
<tr>
<td>ENPV</td>
<td>6929634 EUR</td>
</tr>
</tbody>
</table>

The present project being an assessment of impact of the plans modernisation constitutes a supplemental document to the motion for the subsidy to be granted from Phare 2001 programme. The assessment presents the scope of the planned modernisation, its influence upon particular components of the environment, as well as its social, cultural and economic significance. The project includes the following aims:

⇒ providing Zamosc with over 20 ha of new investment area,
⇒ improvement of transport and communication in the city and ensure greater safety conditions on the roads within the city of Zamosc,
⇒ improvement of transit and trade with Ukraine, improvement of access to the boarder checkpoints in Hrebenne and Zosin,
⇒ shifting the transit route by approximately 3 km from the Old Town in Zamosc which has been registered on the UNESCO List of the World’s Cultural Heritage; technical and ecological protection of the Old Town,
⇒ improvement of environmental conditions.

The necessity of maintaining the preservation zones within the Old Town in Zamosc registered on the UNESCO List of the World’s Cultural Heritage is the reason why there are no proper investment areas for new economic entities (small and middle business entities in particular). Such areas are situated in the north-eastern outskirts of the city and require communication access to be provided. The designed section of the Hetman Ring Road is located
along the wide-gauge Metallurgical and Sulphur railway line in the area where other elements of the infrastructure may be easily provided:

- sewage system with a possibility of its connection with the sewage treatment plant having a large flow capacity, and heat-engineering system with a possibility of its connection with Szopinek heat-engineering plant having a large surplus of thermal energy.

**Project-related activities:**

During the period between 1992 and 1993, construction of 2.8 km section of the Hetman Ring Road was realised in two stages. The third stage of the section of 3.7 km is to be realised in the future. The present assessment describes the above mentioned section. It is assumed that the ring road will be „S” express road. Construction of a section of the ring road from Lubelska St. To Powiatowa St. (Północna St.) up to the cross-roads with Starowiejska St. is planned within the forwarded project. It is estimated that the construction will be carried out in two stages: construction of the right (southern) road way of the ring road, and then the left (southern) one, so that the ring road would function as a two-way road divided by a 6 m long strip. The road way of 7 m in width boarded with a kerb will be made of the road foundation of three-layers hardened with cement, and road surface of three bituminous layers. Width of the safety belt is 2.5 m, hardened road shoulder - 0.75 m. Construction of lay-bys and a 2.5 m wide pavement on the right situated behind the road ditch is planned on the section from Lubelska St. to the cross-roads with Powiatowa St.

Implementation of the investment may have influence upon the environment during the construction works, as well as changes the character of the influence arising from operation of the modernised roads. In the course of implementation of the investment short-term disruptions for the environment may occur in the scope of preservation of the atmosphere and acoustic conditions arising from the operation of the building equipment. The necessity of correction of biotic communities may arise, however those should be under constant protection. The planned Investment will have a positive influence upon the preservation of underground waters owing to the new technologies applied at road draining, getting rid of flood waters and lowering the water level to the first water-bearing horizon. The shift of traffic behind the dense built-up area will cause reduction of emission of dust, combustion gases and reduction of noise emission in the housing area. As far as social and cultural aspect of the Investment is concerned, construction of the ring road is an extremely important and economically justified investment.

Assessment of influence of the aforesaid Investment has been prepared pursuant to the Polish regulations for the environmental protection, as well as the Directives of the European Community Council, such as:

- 80/779/EWG dated 15th July 1980 concerning the admissible concentration of sulphur dioxide and molecules in the air (with further amendments),
- 85/203/EWG dated 7th March 1985 concerning the admissible concentration of nitrogen dioxide (with further amendments),
- 82/884/EWG dated 3rd December 1982 concerning the admissible concentration of lead in the atmosphere (with further amendments),

The above directives have been taken into consideration in the analysis of influence of the Investment upon the atmosphere.


Applying the above directive, the public has been provided with some information on the Investment in order to be given the opportunity to express its opinion before the Investment has been launched.