STANDARD SUMMARY PROJECT FICHE

Construction of Second tube of the Tunnel at km 327 on road E-79 (Dupnitsa By-Pass)

1. Basic Information

<table>
<thead>
<tr>
<th>Cris Number:</th>
<th>2002/000-624-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Construction of Second tube of the Tunnel at km 327 on road E-79 (Dupnitsa By-Pass)</td>
</tr>
<tr>
<td>Sector:</td>
<td>Infrastructure - Transport (IN)</td>
</tr>
<tr>
<td>Location:</td>
<td>Bulgaria, South region</td>
</tr>
</tbody>
</table>

2. Objectives

2.1. Overall Objectives

- Achieving at least the same standards of safety and ride quality as the rehabilitated existing tunnel tube.
- Correspondence to EU road standards.
- Improvement of the infrastructure in the CBC regions of Bulgaria, as a part of the strategy for sustainable social and economic development.

2.2. Project purpose

- Construction of 0.275 km parallel tunnel tube to the existing southbound tunnel on the dual two-lane carriageway of the Dupnitsa by-pass.
- Avoiding the serious bottleneck, significant increase of safety and comfort of the carriageway.
- Time and operating cost savings.
- Temporary job opportunities in the South West region.

2.3. Accession Partnership and NPAA priority

- Development and implementation of complex regional structures, programmes and projects for the integrated development of problem areas in the country – underdeveloped, isolated, depressive and cross-border areas;
- Preparation of Bulgarian regions for the implementation of the structural policies applied by the EU Member States through the development of strategies and programmes for sustainable social and economic development.

NPAA (Medium-term priority):

- Promotion of cross-border co-operation.
2.4. Contribution to National Development Plan


2.5. Cross Border Impact

- Through Improvement of the infrastructure of the Dupnitsa by-pass facilitate the heavy traffic from and to Bulgarian – Greek border.
- Support road infrastructure works in order to foster cross border co-operation at a local and national level.
- Develop the economy of the connected with the border regions by enhancing the economic co-operation.

3. Description

3.3. Background and justification

BACKGROUND

The tunnel to be constructed is situated at km 327 on the northbound carriageway of the dual two-lane carriageway of the Dupnitsa by-pass. A single carriageway tunnel exists on the southbound carriageway and the proposed new tunnel tube shall be constructed in parallel to the existing one.

Under the rehabilitation contract of the Transit Roads I project (Lot VI of the Transit Roads I project financed from the BG9403 programme for transport) the existing tunnel tube on the southbound carriageway was improved by the repair to water leakage damage, accommodation to deal with future water ingress, tunnel height dimensions, and modernisation and replacement of the tunnel lighting system.

The current situation with only one tunnel tube open for the whole traffic is a serious bottleneck, as the road on both sides of the tunnel is dual two-lane one with design speed of 80 km per hour, which by necessity is reduced to 60 km per hour through the single tunnel tube. This is a totally unsafe and unsatisfactory situation.

Construction of the northbound tunnel tube has previously been attempted – following the completion of the southbound tunnel. However, serious problems were encountered – particularly with water leaks and collapse of the excavations – which necessitated abandonment of the works due to the inappropriate construction methods that were employed. When construction was abandoned, some 20 m of excavation works had been completed at the northern end and some 30 m – at the southern end of the tube.

The possibility of re-commencing the construction of the second tunnel tube was envisaged during the rehabilitation works referred to above. Additional investigations (including geo-technical surveys and studies) and preparation of preliminary design were included in the scope of the Tender Documents for the Technical Assistance contract for rehabilitation works. Following the studies and the production of preliminary design and relevant cost estimates, it was subsequently decided to skip the tunnel construction from
the rehabilitation contract, as the scope of the works was considered to be beyond the terms of reference for basic rehabilitation.

Since then, additional geological surveys and investigations have been carried out and the detailed design has been revised, updated and completed.

The proposed project consists of construction of 0.275 km of tunnel at least to the same standards of safety and ride quality as the rehabilitated existing tunnel tube.

**JUSTIFICATION**

The rehabilitation, strengthening and improvement of 87 km of the main road to and from Greece, E-79 between Dupnitsa and Kulata were possible due to Phare funded service and work contracts. The works were completed during May 2002. Within the road section between Daskalovo and Dupnitsa, a 22 km tract is under rehabilitation, and another 18 km tract is under new construction. With the construction of the proposed new tunnel structure the process of upgrading road E-79 will be fully completed and will provide the traffic to and from the Bulgarian – Greek Border with safe and comfortable road with ride characteristics that correspond to EU standards.

The project is in compliance with the priorities and measures of the JPD agreed during the Joint Cooperation Committee (Athens, 20 November 2000) and the JPC (Athens, 23 July 2002) especially with Axis 1: Cross Border Infrastructures, Measure 1.1: Transport Infrastructures.

The project is in full relevance with government regional policy to promote and support the population in the border regions and with relevant Legal Framework.

It is also in compliance with all existing relevant bilateral agreements between Bulgaria and Greece, concerning Border links and relationships.

3.4. **Linked activities**

- BG9803.01.01 Rehabilitation of E-79 road “Dupnitsa – Kulata”: Completed.
- BG9803 01.02 Rehabilitation of E-85 road “Harmanli – Svilengrad”: Under Implementation.
- BG9803 01.03 Reopening of access road to the new border crossing at Illinden (link Goce-Delcev - Drama): Completed.
- BG9904.02.01 Construction of cross border Check-point “Illinden”: Completed.
- BG0008.01 Construction of the Access Road (Podkova - Makaza) to the new Border Crossing between Greece and Bulgaria (Makaza - Nimfeia): Signing of Contract is forthcoming.
- BG0008.02 Construction of Cut & Cover Tunnel at Gotse Deltsev – Drama Border Crossing: Under Tender procedure.
3.5. Results

- Construction of the parallel northbound tunnel tube should complete the improvement of the infrastructure of the Dupnitsa by-pass.
- Provision of employment during the construction period.
- Improvement of road safety and reduction of the traffic accidents.
- Preparation of Bulgarian border regions for the implementation of the structural policies applied by the EU Member States through the development of strategies and programmes for sustainable social and economic development.

3.6. Activities

The Project consists of following main components:

- Detailed Design updating

REA will undertake updating of the existing Feasibility Study before starting of works tendering procedure. No additional funding required.

REA will undertake updating of the existing Detailed Design before starting of works tendering procedure. No additional funding required.

- Construction Supervision Services.

REA will undertake the preparation of the Tender Dossier for the Service Contract and tendering procedure. No additional funding required.

This contract shall be awarded according to the “Practical Guide to Phare, Ispa and Sapard contract procedures” through restricted tender procedure. Estimated budget: 0.4 MEUR.

- Construction Works

REA will undertake the preparation of the Tender Dossier for the Works Contract and tendering procedure. No additional funding required.

The Works consist of new construction of 0.275 km parallel tunnel tube to the existing southbound tunnel on the dual two-lane carriageway of the Dupnitsa by-pass.

The contract shall be awarded under FIDIC conditions through a open tender procedure. Estimated budget: 4.67 MEUR.

The Phare contribution will finance up to 3.80 MEUR. The rest of the financing up to 5.07 MEUR will be financed by the Bulgarian State Budget.

3.7. Lessons learned

Cost and time overruns were highlighted in recent M&A reports. Expenditure will be controlled more closely, by ensuring that variation orders are issued in good time and that the Engineer does not certify payments exceeding the Contract amounts without prior approval. The design for this project has been revised following an earlier attempt
to build the tunnel. The staff within the department has been increased and training of the staff has been carried out. Further delays were caused by slow land acquisition. There is no extra land needed for this project.

4. Institutional Framework

- **Recipient country – Republic of Bulgaria**
- **Beneficiary Institution** – Road Executive Agency (REA).
- **Engineer** – the Engineer will be appointed after restricted International Tender Procedure for the supervision contract according to “Practical Guide to Phare, Ispa & Sapard contract procedures”.
- **Contracting Authority** - Ministry of Regional Development and Public Works (MRDPW, hereafter).
- **Owner of the asset after project completion**: REA

The Regional Department of the Agency will bear the responsibility to cover all operational, administrative and maintenance costs.

5. Detailed Budget (in MEUR)

<table>
<thead>
<tr>
<th>Component s</th>
<th>PHARE Support</th>
<th></th>
<th></th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investment</td>
<td>Institution Building</td>
<td>Total Phare (=I+IB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Supervision</td>
<td>0</td>
<td>0.4</td>
<td>0.4</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction works</td>
<td>3.4</td>
<td>0</td>
<td>3.4</td>
<td>1.27</td>
<td>0</td>
<td>4.67</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3.4</td>
<td>0.4</td>
<td>3.8</td>
<td>1.27</td>
<td>0</td>
<td>5.07</td>
</tr>
</tbody>
</table>

6. Implementation Arrangements

6.1 Implementing Agency

The CBC Implementing Agency is the Ministry of Regional Development and Public Works (MRDPW), which retain overall responsibility for the implementation of the project (approval of terms of reference, of tender documents, of evaluation criteria, of evaluation of offers, signature of contracts, authorisation and payments of invoices).

The project beneficiary institution is Roads Executive Agency (REA). It is responsible towards the CBC Implementing Agency for the operational management of the project: preparation of terms of reference, of tender documents, of evaluation criteria, of evaluation of offers, of contracts and of invoices for payment.

For Work Contracts under FIDIC rules, an official of the REA acts as the Employer and the invoices have to be certified by an independent Engineer contracted and financed by the
Phare Programme. REA reports monthly to the CBC Implementing Agency (with direct copies to the EC Delegation) with monthly disbursement and commitment schedules and with sufficient detail to allow for assessment of progress made and remaining work to be done.

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1202 Sofia
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+359 2 940 5576
Fax +359 2 988 4364

6.2. Twinning
N/A

6.3. Non-standard aspects

There are no “non-standards aspects”. The “Practical Guide to Phare, Ispa and Sapard contract procedures” will strictly be followed.

6.4. Contracts

Two contracts are anticipated:

Service Contract for Construction Supervision.
Estimated value of contract: **0.4 MEUR**.
The duration of the Supervision Contract is expected to be **36 months**:
1 month - mobilization, 18 – supervision during construction, 12 months Defect Notification Period, 5 months – Final Payment

Works Contract for Construction Works.
Estimated value of contract: **4.67 MEUR**.
The duration of the Works Contract is expected to be **35 months**:
18 –construction, 12 months Defect Notification Period, 5 months – Final Payment

7. Implementation Schedule

<table>
<thead>
<tr>
<th>Start of tendering</th>
<th>Start of project activity</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2003</td>
<td>January 2004</td>
<td>November 2006</td>
</tr>
</tbody>
</table>

8. Equal Opportunity

The project implementation procedures will ensure that the project brings benefits to men and women and to ethnic groups in equal measure. Special attention will be paid to guarantee that women and members of ethnic groups are included in the project activities.
9. Environment

After an update of the Detailed Design, an Ecological map will be prepared and presented to The Ministry of Environment and Waters for approval.

10. Rates of return

All results from the study of the economic efficiency of the necessary capital investments for realisation of the project are presented in the Feasibility study.

11. Investment criteria

11.1 Catalytic Effect

Without Phare assistance the project will not be implemented in the near future, due to lack of funds. Thus EU Phare funds are appearing as the economic assistance to the country and will mobilise economy during Pre-Accession period achieving better socio-economic effect.

11.2 Co-financing

The project is to be co-financed by Bulgarian Government who will provide 25% of the total cost of the project, which is 1.27 MEUR.

Bulgarian authorities undertakes the obligation to cover any additional cost, above the envisaged MEUR 5.07, necessary for the completion of the whole project during its implementation timeframe.

If the total cost of the project is greater than the amount envisaged in the project fiche, the extra support required will be provided by additional national co-financing. The additional national co-financing will be provided by:

- either allocating extra national funds to conclude a contract with the contractor proposed further to the completion of the procurement process following the Practical Guide to Phare, Ispa and Sapard Contract Procedures,
- or increasing of the cost of the on-going Phare financed contract via an addendum

11.3 Additionally

No other financing sources from the private sector or from IFIs will be available for financing of the project.

11.4 Project readiness and Size

The Feasibility Study and Detailed Design are completed. REA will update the Study and Detailed Design in order to ensure compliance with the international standards and norms.

On the basis of the Detailed Design REA will prepare the Tender Dossiers for the Works and Service Contracts and tendering procedures.

The implementation of the project can start according to the construction chart (Annex 2). The project complies with the 2 MEUR minimum PHARE allocation requirements.
11.5 Sustainability

Road Executive Agency as an institution will be responsible for the future maintenance and operational costs of the rehabilitated road.

11.6 Compliance with the state aids provisions

The project complies with the state aids provisions.

11.7 Contribution to National Development Plan

N/A

12. Conditionality and sequencing

- The Bulgarian authorities undertake the obligation to cover any additional cost, above the envisaged 5,07 MEUR necessary for the completion of the whole project during its implementation timeframe.

- Bulgarian authorities undertake the obligation to ensure that utilities (e.g. water, sewage and electricity) are connected to the site.

- Every infrastructure project will be publicised according to a publicity action plan to be prepared by the Ministry of Regional Development and Public Works and endorsed by the Commission before tendering the works.

ANNEXES TO PROJECT FICHE

1. Logical framework matrix in standard format
2. Detailed implementation chart
3. Contracting and disbursement
4. Reference to feasibility /pre-feasibility studies
# Annex 1 – Logical framework matrix in standard format

**Construction of Second tube of the tunnel at km 327 on road E-79 (Dupnitsa Ring Road)**

<table>
<thead>
<tr>
<th>Overall Objective</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Information</th>
</tr>
</thead>
</table>
| - Achieving at least the same standards of safety and ride quality as the rehabilitated existing tunnel tube.  
- Correspondence to EU road standards.  
- Improvement of the infrastructure in the CBC regions of Bulgaria, as a part of the strategy for sustainable social and economic development. | - Increase the traffic to and from Bulgarian – Greek border  
- Increase GDP regional share  
- Increase local and foreign investment in the region | Governmental and international statistic |

<table>
<thead>
<tr>
<th>Project Purpose</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Information</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| - Construction of 0.275 km parallel tunnel tube to the existing southbound tunnel on the dual two-lane carriageway of the Dupnitsa by-pass.  
- Avoiding the serious bottleneck, significant increase of safety and comfort of the carriageway.  
- Time and operating cost savings.  
- Temporary job opportunities in the South West region. | - Reduced journey duration  
- Correspondence with EU requirements and regulations | - Beneficiaries.  
- Increase the safety to the EU standards  
- Bulgarian Government continues its current commitment to reform and to accession to the EU |
<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Information</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| • Construction of the parallel northbound tunnel tube should complete the improvement of the infrastructure of the Dupnitsa by-pass.  
• Provision of employment during the construction period.  
• Improvement of road safety and reduction of the traffic accidents.  
• Preparation of Bulgarian border regions for the implementation of the structural policies applied by the EU Member States through the development of strategies and programmes for sustainable social and economic development. | • Interim Payment certificates  
• Taking over certificate under FIDIC  
• Documents for hand over according Bulgarian Territorial Structural Act | • MRDPW  
• Municipality | • Most of project activities does not exceed cost estimates and no major contingency during construction |

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Sources of Information</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| **Construction Supervision Services.**  
A consultant will be contracted according to the “Practical Guide to Phare, Ispa and Sapard Contract Procedure.” through a Simplified tender procedure.  
**Construction Works**  
New Construction of 0.275 km of tunnel.  
The contract shall be awarded under FIDIC 1999 conditions for construction through an open tender. | • **0.4 MEUR** estimated cost of contract  
• **4.67 MEUR** estimated cost of contract  
• Adequately staffed contractor’s team | • reports issued by MRDPW, REA, Resident Engineers, Contractors  
• MRDPW bank statements | • Continuity of staff and policy in MRDPW and REA enabling implementation of the project without delays |
Annex 2 – Detailed implementation chart

Construction of Second tube of the tunnel at km 327 on road E-79 (Dupnitsa By-Pass)

<table>
<thead>
<tr>
<th>Components</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Construction Supervision</td>
<td>T T T T T T C</td>
<td>I I I I I I I</td>
<td>I I I I I I I</td>
<td>I I I I I I I</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Construction Works</td>
<td>T T T T T T C</td>
<td>I I I I I I I</td>
<td>I I I I I I I</td>
<td>I I I I I I I</td>
</tr>
<tr>
<td>D = Design/Tender preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C = Contracting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I = Implementation/works</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T = Tender procedure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D = Design/Tender preparation      C = Contracting      I = Implementation/works  T = Tender procedure
Annex 3 – Contracting and disbursement schedule by quarter

*Construction of Second tube of the tunnel at km 327 on road E-79 (Dupnitsa By-Pass)*

<table>
<thead>
<tr>
<th>Components</th>
<th>Cumulative contracting schedule by quarter in MEUR (planned)</th>
<th>Total Phare Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>1. Construction Supervision Services</td>
<td>0,4</td>
<td>0,4</td>
</tr>
<tr>
<td>2. Construction Works</td>
<td>3,4</td>
<td>3,4</td>
</tr>
<tr>
<td><strong>Total contracting:</strong></td>
<td>0,4</td>
<td>3,8</td>
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</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Cumulative disbursement schedule by quarter in MEUR (planned)</th>
<th>Total Phare Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>1. Construction Supervision Services</td>
<td>0,036</td>
<td>0,072</td>
</tr>
<tr>
<td>2. Construction Works</td>
<td>0,264</td>
<td>0,528</td>
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<tr>
<td><strong>Total disbursement:</strong></td>
<td>0,036</td>
<td>0,336</td>
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</table>
Annex 4 - Reference to feasibility /pre-feasibility studies

The Project is supported by Feasibility Study prepared by Road Executive, which will be updated.