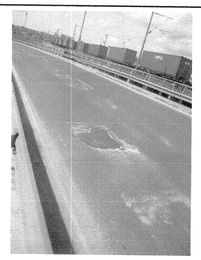
## INTERVENTION WORK: B1- ROADWAY PAVEMENT AND WATERPROOFING REPLACEMENT

The bridge pavement execution covers the following activities:
- scarifying and removing the existing bituminous surface;
- loading and transport of the material resulting from the demolition to an approved dump area;
- cleaning and removal of any loose material from the concrete surface by sand blasting;
- procurement, transport, storage and handling of all related materials and equipment;
- execution of the leveling and slope concrete;
- waterproofing execution in accordance with the specific instructions in use;
- performance of the in situ adherence tests of the membrane, at the required frequency;
- execution of the asphalt mortar waterproofing protection;
- assuring water tightness in correspondence of the waterproofing edges using specific elastic materials;
- laying 40 mm thick protective course including surface preparation applying primer coat with bitumen emulsion
- laying 40 mm thick wearing course including surface preparation applying primer coat with bitumen emulsion
- verifications after execution in accordance to the design;
- sampling and laboratory testing.

## DETERIORATION:

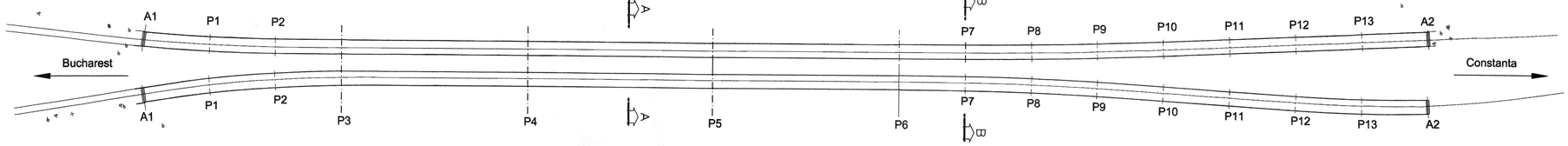


*Pit holes on road pavement*

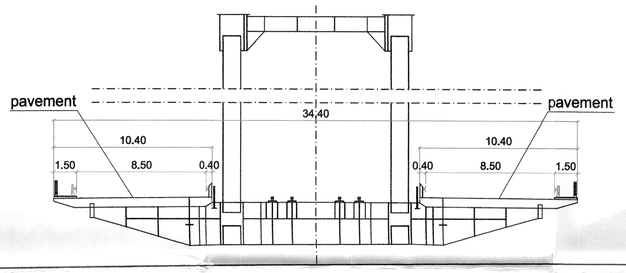
IVANESCU T. TOMA ROMANIA MEMBRU CSCIA NR. 445 INGINER VERIFICATOR PROIECTE
19-11-2008

## GENERAL VIEWS

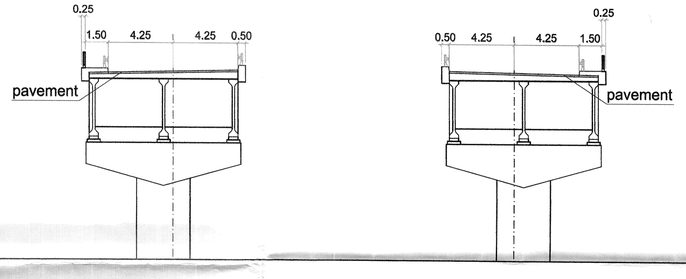
PLAN - 1:2000




BRIDGE TRANSVERSAL SECTION (A-A) - 1:200



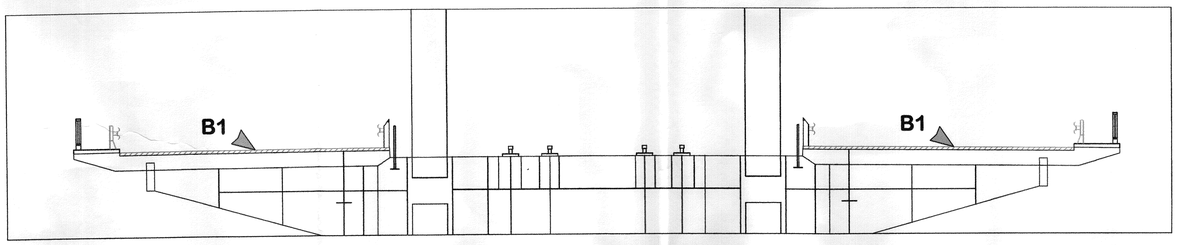

VIADUCT TRANSVERSAL SECTION (B-B) - 1:200



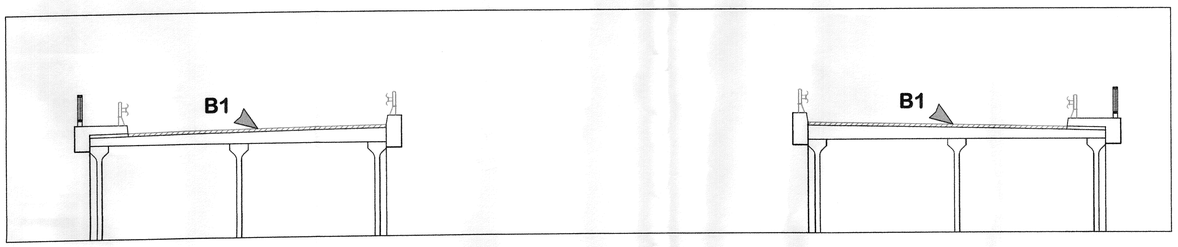

## WORKING CODE LIST

| CODE | MAINTENANCE AND REHABILITATION WORKS | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ROAD FINISHES AND EQUIPMENT | | | | | | | | | | |
| A1 | Painting of pedestrian parapet | | | | | | | | | | |
| A2 | Replacement of pedestrian parapet | | | | | | | | | | |
| A3 | Guard rail replacement | | | | | | | | | | |
| A4 | Electrical equipment replacement | | | | | | | | | | |
| A5 | Walkway slab substitution | | | | | | | | | | |
| | PAVEMENTS | | | | | | | | | | |
| B1 | Roadway pavement and waterproofing replacement | | | | | | | | ■ | | |
| B2 | Roadway superficial drainage rehabilitation | | | | | | | | | | |
| B3 | Walkway pavement replacement | | | | | | | | | | |
| B4 | Expansion joints replacement | | | | | | | | | | |
| B5 | Bearings replacement | | | | | | | | | | |
| | CONCRETE REPAIR | | | | | | | | | | |
| C1 | Deck slab repair | | | | | | | | | | |
| C2 | Prestressed concrete beams repair | | | | | | | | | | |
| C3 | Pier caps concrete repair | | | | | | | | | | |
| C4 | Piers concrete repair | | | | | | | | | | |
| C5 | Tower leg concrete repair | | | | | | | | | | |
| C6 | Structural strengthening | | | | | | | | | | |
| C7 | Superstructure replacement | | | | | | | | | | |
| | STEEL WORKS | | | | | | | | | | |
| D1 | Painting of steel structures | | | | | | | | | | |
| D2 | Stay cables maintenance | | | | | | | | | | |
| D3 | Strengthen of anchor bolts | | | | | | | | | | |
| D4 | Rehabilitation of inspection gantry and rails | | | | | | | | | | |
| | EARTHWORKS | | | | | | | | | | |
| E1 | Ashlar stoneworks repair | | | | | | | | | | |
| E2 | Repair of strutture connection with embankment | | | | | | | | | | |
| E3 | Cone quarters rehabilitation | | | | | | | | | | |
| E4 | Rehabilitation of storm water collecting system | | | | | | | | | | |
| E5 | River bank improvement | | | | | | | | | | |

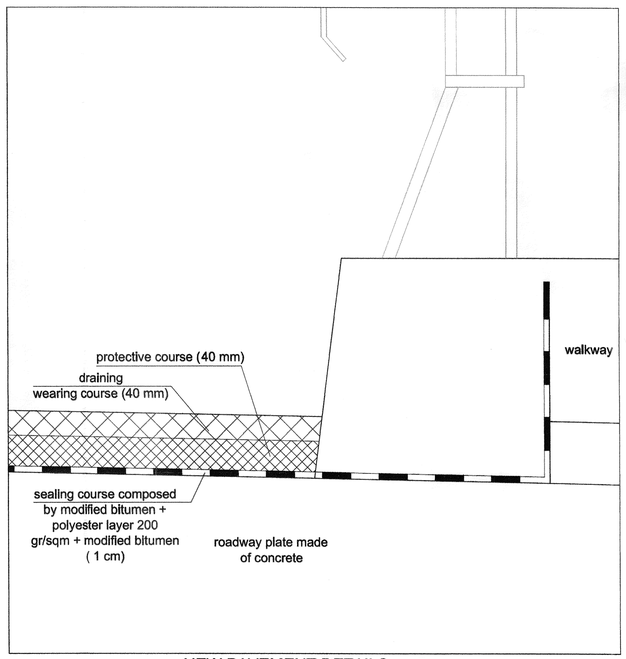
## INTERVENTION DETAILS




INTERVENTION ON BRIDGE PAVEMENT - 1:100




INTERVENTION ON VIADUCT PAVEMENT - 1:100




NEW PAVEMENT DETAILS - 1:5

INVESTOR/INVESTITOR

ROMANIAN NATIONAL COMPANY OF MOTORWAYS AND NATIONAL ROADS
COMPANIA NATIONALA DE AUTOSTRAZI SI DRUMURI NATIONALE DIN ROMANIA

DESIGNER/PROIECTANT

LOUIS BERGER GROUP inc.

CONSULTING SERVICES FOR DESIGN AND WORKS SUPERVISION OF 10 BRIDGES IN DOBROGEA AREA

TECHNICAL DESIGN

**B08-BRIDGE A2 BORCEA** — TD - B08 - 05

DESIGN TEAM LEADER
Vittorio Ascoli Marchetti

ORDINE INGEGNERI ROMA N° 12645

**PAVEMENTS**

CONSULTANTS
SOLIDUS s.r.l. - Roma Italia
Francesco Del Tosto
Romano Tucci

B1
ROADWAY PAVEMENT AND WATERPROOFING REPLACEMENT

| scale | various | file name TD - B08 - 05 | | | | |
|---|---|---|---|---|---|---|
| data / date | rev. | revision title | des | ver/chk | CP / PC | APPR. AUTHORITY |
| 08 aug 2008 | 0 | issue | SOLIDUS | ASCOLI | | |