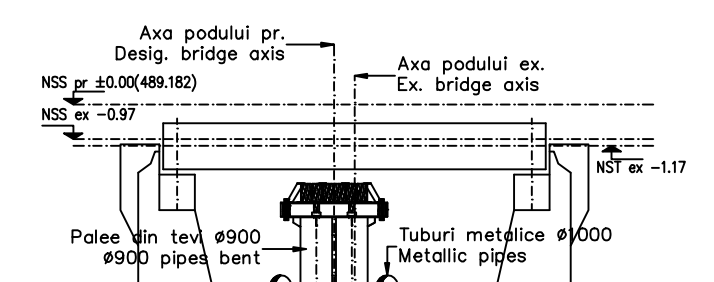
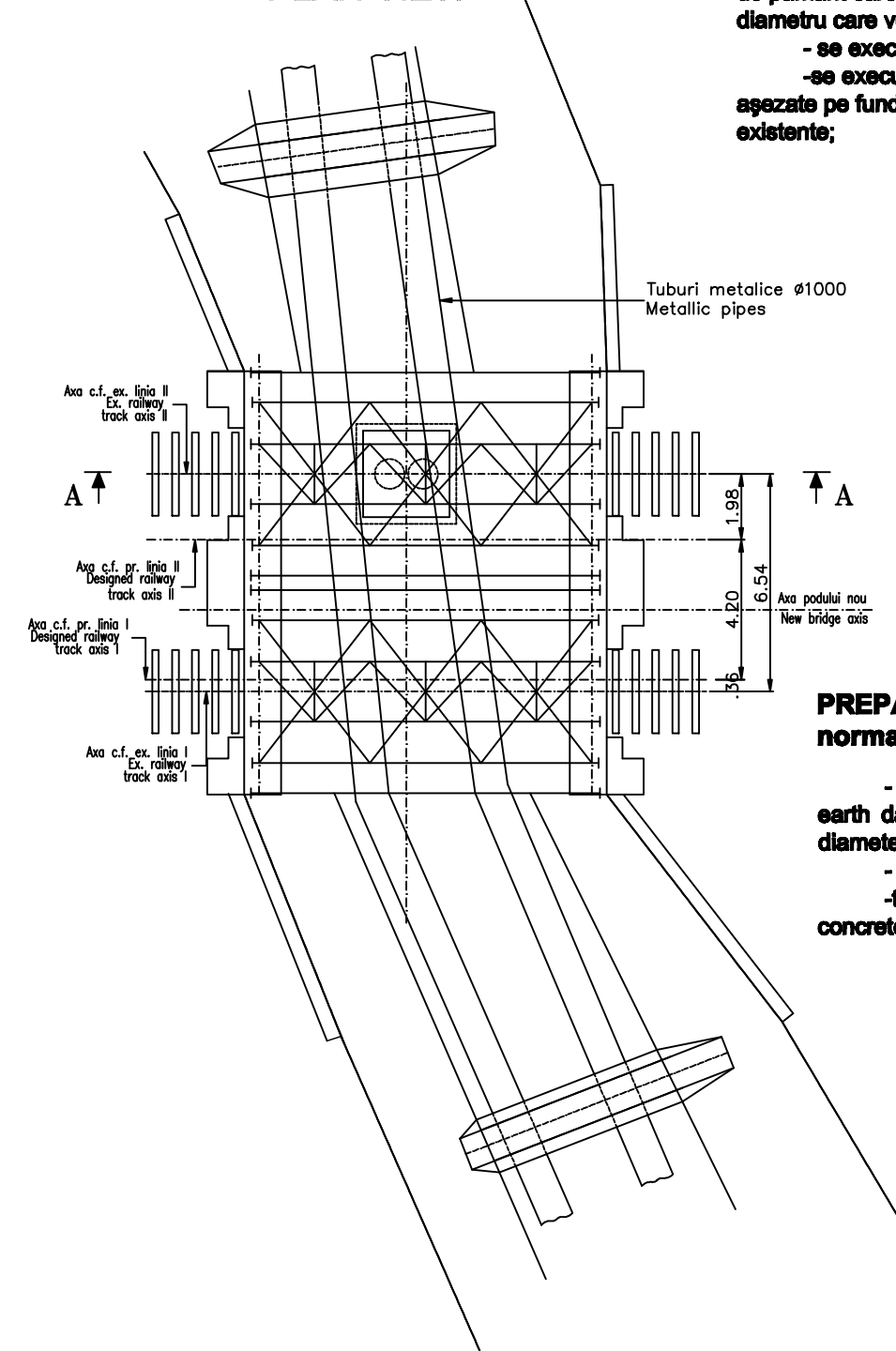


SECTIUNE A-A
A-A SECTION



VEDERE IN PLAN
PLAN VIEW



LUCRARI PREGATOARE

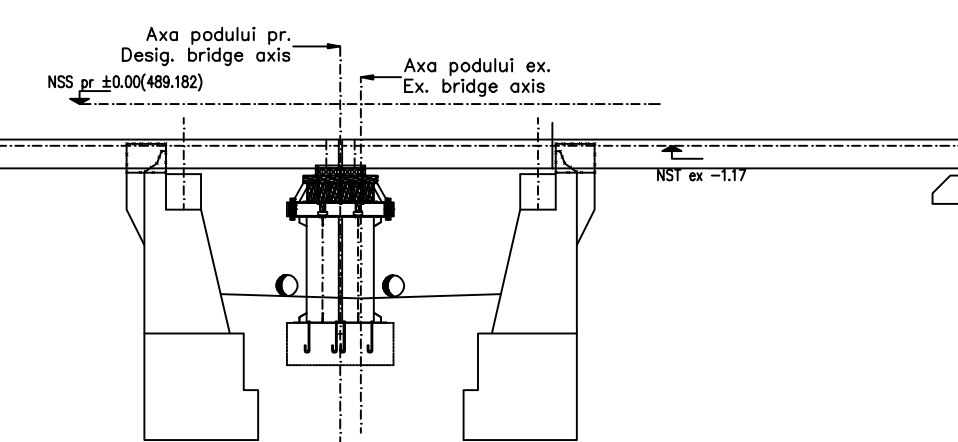
- cu circulatie normala pe ambele linii

- In amonte si aval de pod la 10,00m se executa barje de pamant care inlocuiesc doua tuburi metalice de 1,00m diametru care vor conduce apele pe sub pod.
- se executa fundatia palei provizorii;
- se executa palea provizorie din tuburi metalice speciale pe fundatie de beton, cat permite prezenta tablierelor existente;

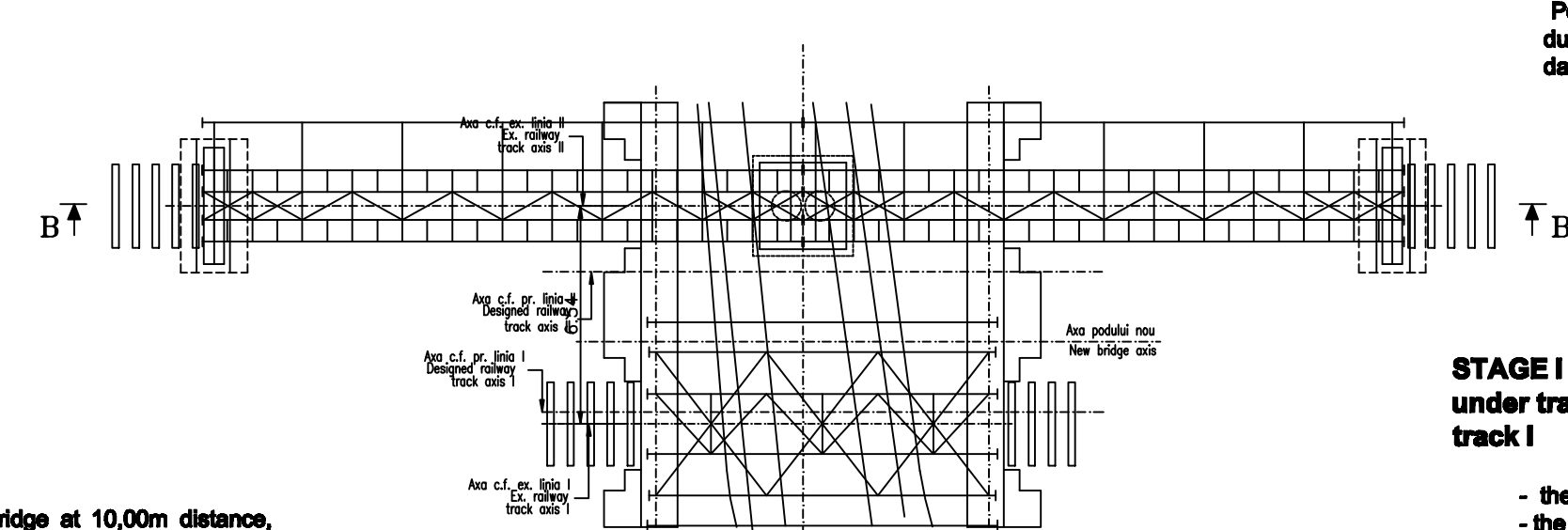
PREPARATORY WORKS
normal traffic on both tracks

- upstream and downstream the bridge at 10,00m distance, earth dams will be built which involve two metallic tubes of 1,00m diameter to direct the water under the bridge.
- the foundation of the provisory pile trestle will be carried out;
- the provisory pile trestle made of metallic tubes placed on the concrete foundation will be also built.

SECTIUNE B-B
B-B SECTION



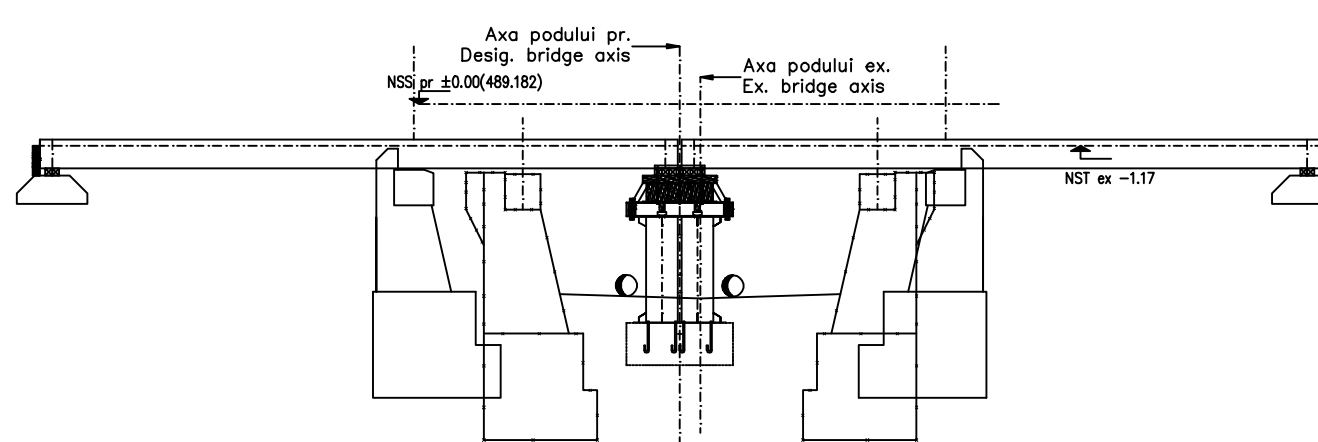
VEDERE IN PLAN
PLAN VIEW



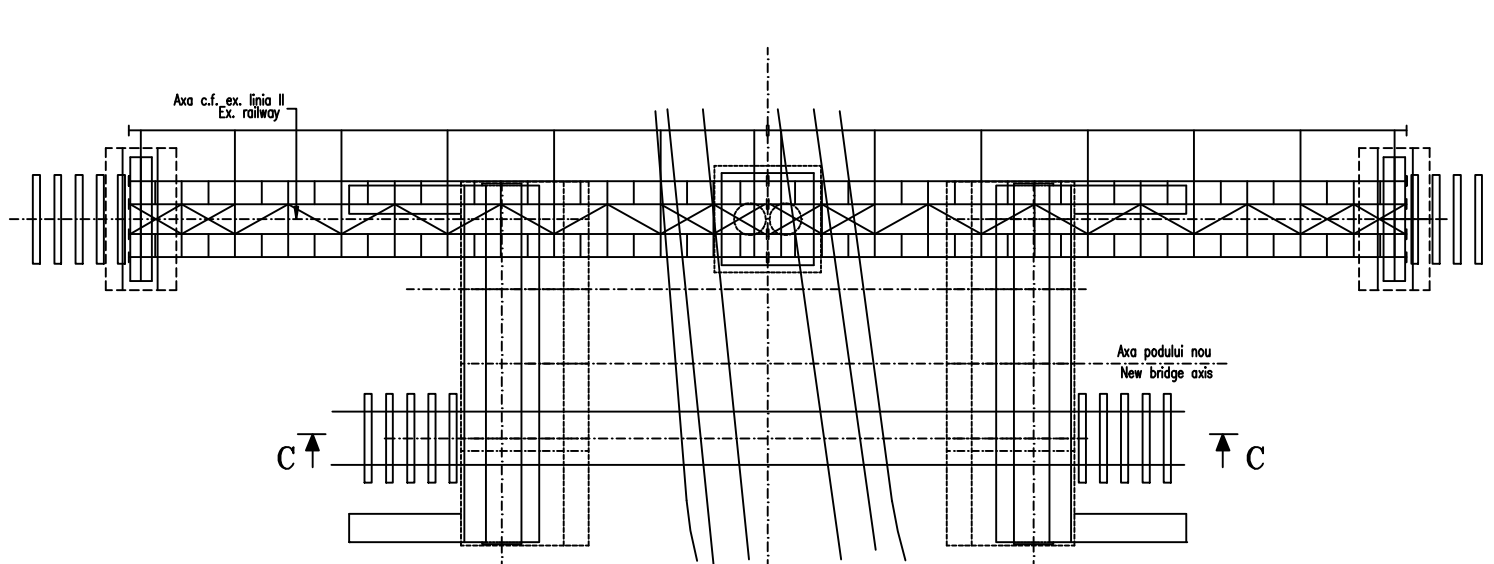
STAGE I
under traffic closure on track II and normal traffic on track I

- the contact line will be de-energized;
- the deck will be taken out of track II;
- the required excavations are carried out for the foundation blocks on the embankment for the provisory bridges G18.
- the track will be dismantled along the sections afferent to the working areas;
- the prefabricated foundations of the provisory bridges G 18 will be mounted;
- the upper part of the existing abutments will be demolished to allow the introduction of the provisory bridges on the track;
- the upper part of the pile trestle will be arranged to support the decks of the provisory bridges;
- the decks of the provisory bridges will be placed on track by crane (one of the ends will rest on the provisory pile trestle while the other one will rest on the foundations in the embankment);
- the cathode protection will be ensured for the provisory bridges;
- the contact line will be put again under voltage;
- the traffic will be reopened on track II at 30km/h speed restriction with speed steps of 5km/h within the first 24 hours. The provisory bridges will be under control during the operation and the faults will be repaired, if the case.

SECTIUNE C-C
C-C SECTION



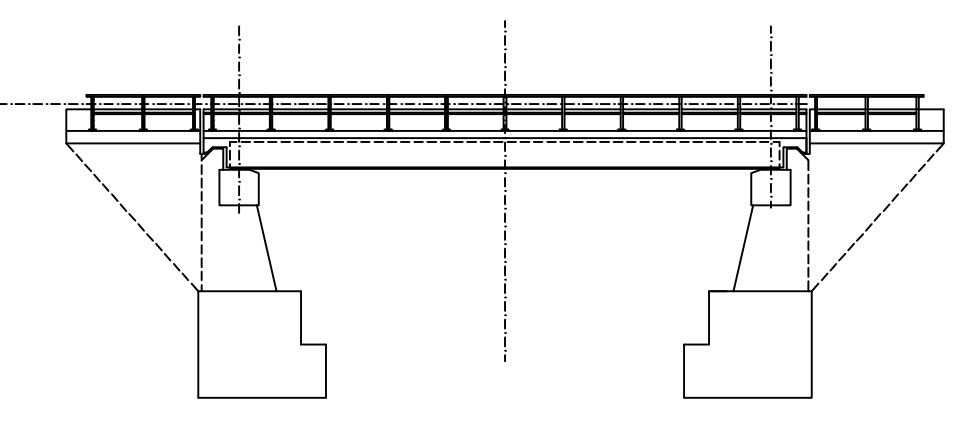
VEDERE IN PLAN
PLAN VIEW



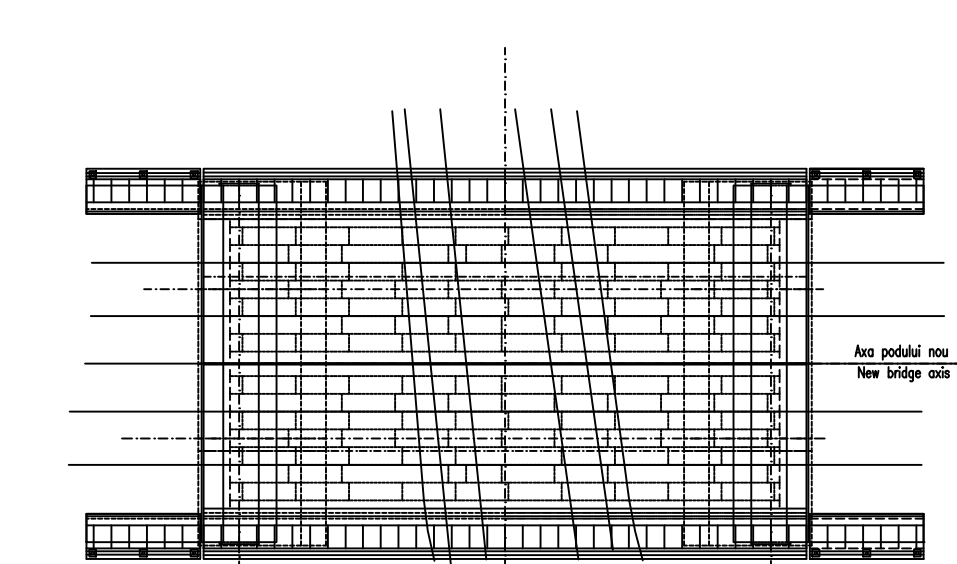
STAGE II
under traffic closure on track I and speed restriction of 30km/h on track II

- the contact line will be de-energized and demounted;
- the track will be dismantled along the sections afferent to the working areas;
- the deck will be taken out of track I;
- the existing abutments will be completely demolished;
- the required excavation with propping will be carried out to enable the construction of the foundations for the designed abutments;
- the concrete will be cast in the foundations of the new abutments;
- the elevations of the abutments for the new bridge will be built - according to the new embankment profile in the bridge area - completely along the areas afferent to the designed track I (elevation, bearing boxes, beam of bearing boxes, guard wall and reversed walls); the elevations of abutments in the areas afferent to the designed track II will be built to such an extent as the provisory bridges allow it;
- the filling will be made behind the new abutments;
- the designed track I up to the bridge will be carried out;
- the contact line works will be carried out on the new location of track I.
- after reaching 100kg/cm2 resistance, but no earlier than 7 days, the deck for track I will be built (laying the steel girders, making the shuttering, reinforcement of the slab, concrete casting, etc.);
- when the concrete on the deck reached 100kg/cm2 resistance, but no earlier than 7 days, the deck will be equipped for the traffic opening (slope concrete, waterproofing and protection concrete, crushed stone prism, sleepers, rail, guard rail, fastening on the bridge and on the adjacent embankment areas). Before making the crushed stone prism, the L-shaped prefabricated elements will be mounted to support the prism.
- the contact line will be mounted;
- the contact line will be put under voltage;
- the traffic will be opened on the designed track I with speed steps, according to the railway instructions in force;

VEDERE D-D
D-D VIEW



VEDERE IN PLAN
PLAN VIEW



STAGE III
under traffic closure on track II and speed restriction of 30km/h on track I

- the contact line will be de-energized and demounted;
- the existing track II will be demounted;
- the provisory bridges will be taken out of track II;
- the provisory pile trestle will be completely demolished;
- both abutments will be completed in the areas afferent to track II;
- the filling will be made behind the new abutments;
- the designed track II up to the bridge will be carried out;
- the contact line works will be carried out on the new location of track II.
- after reaching 100kg/cm2 resistance, but no earlier than 7 days, the deck for track II will be built (laying the steel girders, making the shuttering, reinforcement of the slab, concrete casting, etc.);
- when the concrete on the deck reached 100kg/cm2 resistance, but no earlier than 7 days, the deck will be equipped for the traffic opening (slope concrete, waterproofing and protection concrete, crushed stone prism, sleepers, rail, guard rail, fastening on the bridge and on the adjacent embankment areas). During the traffic breaks on track I, the L-shaped prefabricated elements that supported the crushed stone prism of track I will be removed from the track and the crushed stone prism will be completed;
- the contact line will be mounted;
- the contact line will be put under voltage;
- the traffic will be opened on both designed tracks without restrictions, with speed steps according to the railway instructions in force.

STAGE IV
normal traffic on both tracks

- the earth dams in the riverbed will be removed, the two metallic tubes will be taken out and the improvement works for the riverbed under the bridge and upstream and downstream from it will be carried out according to the riverbed improvement project.

D					
C					
B					
A	11.2011	Revizua 1 1 Revision	Vasile Stirbu	Proiectant Designer	Proiectant Approved Consultant
Intin Index	Date Date	Modificari Modification/Revision		Proiectant Approved Consultant	Proiectant Approved CFR

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANAT DE UNIUNEA EUROPEANA
EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT

C.N.C.F. "C.F.R." - S.A.

CONSULTANT / CONSULTANT

Gruppo Ferrovie dello Stato, Scot Wilson, Obermeyer Planen + Beraten GmbH, Tecnica Consulting Engineers

Approved	Subcontractant Responsible	A. Dinulescu Stancu	07.2011	
Elaborated	Designer	Vasile Stirbu	07.2011	

Reabilitarea liniei de cale ferata Bragov - Simeria, parte componenta a coridorului IV Pan-European, pentru circulatia trenurilor cu viteza maxima de 160 km/h.

Bragov - Sighisoara

Tronsoanel: 2004/RO/18/PPA/003

Rehabilitation of the railway line Bragov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h, Section : Bragov - Sighisoara

Faza / Phase: P.Th. / T.D.

Denumire desen / Drawing Title :

INTERVAL / SECTION FELDIOARA - APATA

Pod Feldioara Km194+410.93 - D=15.00m - /Feldioara Bridge Km 194+410.93

PROCES TECHNOLOGIC/SEQUENCE OF OPERATIONS

Codificare / Codification System	Scara / Scale 1:200	LOT / LOT	Nr. / No 01/01
E A 5 1	0 1	C 0 8	D X P V 0 0 9
			0 0 0 4 1