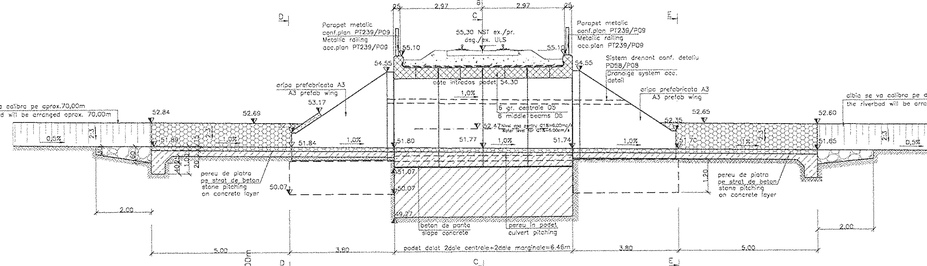
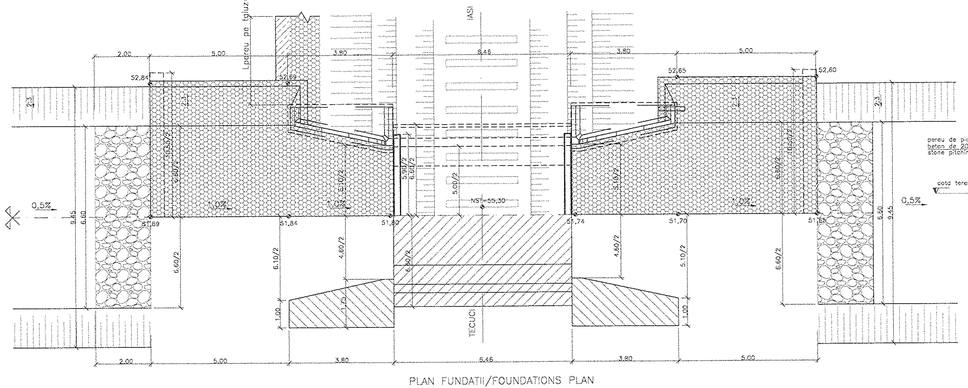
SECTIUNE LONGITUDINALA A–A
LONGITUDINAL SECTION A–A

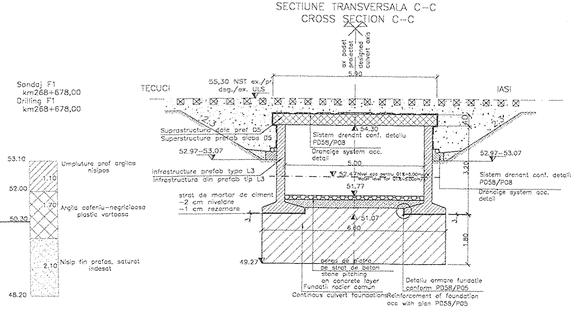


VEDERE IN PLAN

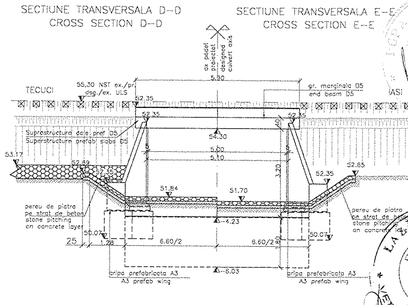


PLAN FUNDATII/FOUNDATIONS PLAN
SC. 1:100

SECTIUNE TRANSVERSALA C–C
CROSS SECTION C–C



SECTIUNE TRANSVERSALA D–D
CROSS SECTION D–D



SECTIUNE TRANSVERSALA E–E
CROSS SECTION E–E

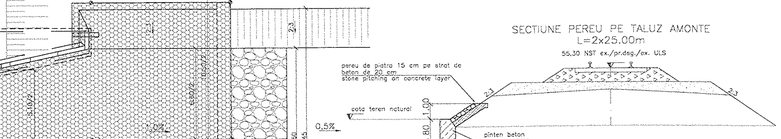
NOTA
1. Proiectarea a avut la baza urmatoarele date:
– Studiu topografic; Studiu geotehnic; Fisa podetului;Expertiza Tehnica;Date suplimentare;
– Certificat de urbanism nr. 121/3662 din data de 31.07.2008, eliberat de Consiliul Judetean Galati;
– Aviz pentru gospodarirea apelor, nr. 6995/AMR din data de 31.07.2009, eliberat Directia Apelor Prut, Municipiul Iasi;
– Aviz pentru protectia mediului, nr. 10435 din data de 23.09.2009, emis de Agentia pentru Protectia Mediului Galati;
– Recomandarea facuta, in urma avizarii in cadrul CTE, de catre Sucursala RDF Iasi – Divizia Tehnica – Birou Pregatire Proiecte, privind eliminarea solutiei finale.
2.3- pe baza/ urmatoarele lucrari:
– Inlocuirea podului existent cu un pod nou cu lumina de 5,00m, avand suprastructura alcatuita din dale prefabricate tip D5 si infrastructura alcatuita din elemente prefabricate tip L3. Lungimea totala a podului nou va fi de 6,00 m. Structura existenta se demolizeaza conform procesului tehnologic descris in urmatorul capitol, la capatul unui pod peste cursul de apa, cu latimea de 30 m/sh. Suprastructura podului nou va fi alcatuita din 6 dale centrat tip D5 si 2 dale marginale tip D5, care includ si timpanele. Acestea dale vor fi executate din beton armat clasa C40/50. Peste dalele prefabricate se va executa o hidroizolatie din membrane bituminoase, protejate cu o aspa de protectie, de 5cm grosime, din beton armat clasa C25/30;
Infrastructura podului va fi alcatuita din cate 4 elemente prefabricate tip L3 pentru fiecare culee. Acestea elemente prefabricate tip L3 sunt executate din beton armat clasa C35/45;
Fundatia podului va fi o fundatie directa din beton simplu clasa C20/25, cu grosimea de 1,80m. Aceasta fundatie va fi comuna pentru ambele culei, pl se va executa la cota – 6,00m fata de NST, in stratul de nisip fin prafos, saturat, indesat.
In interiorul podetului dala este peresta cu pereu de piatra bruta, cu grosimea de 15 cm, asezat pe un rodier de beton simplu clasa C 16/20, cu grosimea de 20cm. Panta dalei in podet este de 1,0%;
Orenurile pentru scurgerea apelor din spatele podetului cu rol pastrarea la o cota corespunzatoare nivelului terent adiacent de 15 comunicat de INHGA, Q1%=8,0 mq/s iar levita de sren executata apele prin aripile A3 din amonte si evol, conform detaliilor din planul "Dispozitie generala – P058/P03";
Podetul se rezolvarea in term in amonte si evol cu doua aripi prefabricate tip A3, fiire ele pereul este de piatra de 15 cm grosime pe un rodier de beton simplu clase C16/20. Aripile prefabricate sunt alcatuite din beton clase C35/45. Pe terasamentul amonte, pe o lungime de 90,0m (cate 35,0m inainte si apoi evol), se va executa o protectie a talzului cu pereu de piatra bruta cu grosimea de 15cm, asezat pe un strat de beton simplu clase C16/20, de 20cm grosime, prevazut cu pinten si plasnul talzului;
Pe terasamentul amonte si evol elibi se va proteja cu o saltea din enrosamente cu lungimea de 2,00m. Aibi se va calibra pe o lungime de 70,0m amonte si 130,0m aval.
2. The design is based on the following data:
– Topo plan; Geotechnical study; Culvert sheet;
– Expertise; Data collected on the site; Feasibility study;
– Urbanism certificate no. 121/3662 dated 31.07.2008, issued by the County Council of Galati;
– Notice for water administration no. 6995/AMR dated 31.07.2009, issued by the Direction of Waters of Prut, Iasi Municipality;
– Approval for water administration no. 10435 dated 23.09.2009, issued by the Agency of Environment Protection Galati;
– Recommendation done following the approval within the CTE by the Railway District Iasi – Technical Division – Project Preparation Office, with regard to the selection of the final solution.
2. The following works were provided:
– Replacing the existing bridge with a new bridge having elegnence of 5,00m, with superstructure of precast slabs type D5 and infrastructure of precast elements type L3. The total length of the new bridge will be of 6,00m. The existent structure is demolished according to the technological process described in the next chapter, under the protection of a temporary bridge, at 30 m/sh, with length of the current limit of 30 m/sh. The way the new bridge is executed if presented in plan "General layout – P058/P03";
– The superstructure of the new bridge will be formed of 6 central slabs type D5 and 3 marginal slabs type D5 that also include the tympans. These slabs will be executed of pre-stressed r.c. class C40/50. Over the precast slabs there will be executed a waterproofing made of bitumen membranes protected by a 5cm thick r.c. class C25/30 protection blanket;
– The bridge infrastructure will be made of 4 precast elements type L3 for each coutment. These precast elements type L3 are executed of r.c. class C35/45;
– The foundation of the new bridge will be a direct 1,80m thick foundation made of plain concrete class C20/25. This foundation will be common to both abutments and will be executed at level – 6,00m against the NST (top of the sleeper), into the fine dusty, saturated, compacted sand layer;
– Inside the culvert the riverbed is pitched with 15cm thick rubble stone pitching placed on a foundation frame of plain concrete class C 16/20, having a thickness of 20cm. The slope of the riverbed in the culvert is 1,0%;
– The drains for discharge of waters behind the culvert were placed at a quota adequate to the level afferent to the water flow 1% communicated by INHGA, Q1%=8,0 mq/s and the drain pipes discharge the waters through the wings A3 from downstream and upstream, according to the details of plan "General layout – P058/P03";
– The culvert is protected to the ground upstream and downstream with two precast wings type A3, between them the pitching is of 15cm thick stone placed on a foundation frame made of plain concrete class C16/20. The precast wings are made of r.c. class C35/45. On the upstream embankment, on 70,0m length (35,0m before and after the culvert), there will be executed a slope protection by help of 15cm thick rubble stone pitching placed on a 20cm thick layer of plain concrete class C16/20, provided with spur dike all the end of the slope;
3. At the downstream and upstream ends the riverbed will be protected with a 2,00m long riprap mattress. The riverbed will be calibrated on 70,0m upstream and 130,0m downstream.

CONVOI DE CALCUL LM 71/CALCULATION CONVOY LM 71

Elementele prefabricatele D2EN, trebuie sa corespunda cerintelor din SREN 206–1/2002

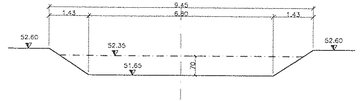
The precast elements D2EN, have to observe the requirements specified in SREN 206–1/2002

SECTIUNE PEREU PE TALUZ AMONTE
L=2x25,00m

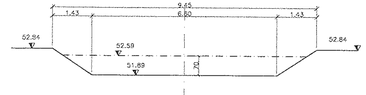


NOTA
Cu ocazia lucrarilor se vor demola si indeparta fundatiile celor doua podete din amplasament.
Se va tine cont ca nivelul proiectat de fundare a podetului so se gaseasca cu min 20 cm sub nivelul sfaturilor maxime.

CALIBRARE ALBIE AVAL
DOWNSTREAM RIVERBED CORRECTION



CALIBRARE ALBIE AMONTE
UPSTREAM RIVERBED CORRECTION



LEGENDA BETOANELOR
conform NE 012–1:2007/SR EN 206–1

- Beton armat in elemente prefabricate tip D5 C40/50, expunere XC4+XF3+XA1 (RO), Cl 0.2, agregate Dmax 22, densitate D 2.5, consistenta S3;
- Beton armat in elemente prefabricate tip L3 si aripi tip A3 C35/45, XC4+XF3+XA1 (RO), Cl 0.2, agregate Dmax 22, densitate D 2.5, consistenta S3;
- Beton simplu in fundatii pod C20/25, expunere XC4+XF3+XA1 (RO), Cl 0.2, agregate Dmax 32, densitate D 2.5, consistenta S2;
- Beton simplu in rodier pereu si amenajare elibi C16/20, expunere XF3+XA1 (RO), Cl 0.2, agregate Dmax 22, densitate D 2.5, consistenta S2;
- Beton de panta si protectie a hidroizolatiei C25/30, expunere XF3+XA1 (RO), Cl 0.2, agregate Dmax 16, densitate D 2.5, consistenta S3

LEGEND OF CONCRETES
according to NE 012–1:2007/SR EN 206–1

- Concrete in precast elements C 40/50, exposure XC4+XF3+XA1 (RO), Cl 0.2, aggregates Dmax 22, density D 2.5, consistency S3
- Concrete in precast elements C 35/45, exposure XC4+XF3+XA1 (RO), Cl 0.2, aggregates Dmax 22, density D 2.5, consistency S3
- Plain concrete for foundation and upstream chamber C20/25, exposure XF3 (RO), Cl 0.2, aggregates Dmax 32, density D 2.5, consistency S3
- Plain concrete for pitching and arranging riverbed C16/20, exposure XF3+XA1 (RO), Cl 1.0, aggregates Dmax 22, density D 2.5, consistency S2
- Slope protection and waterproofing protection C25/30, exposure XF3 +XA1(RO), Cl 0.2, aggregates Dmax 16, density D 2.5, consistency S3

B			
A			
	Data / Date	Modificare / Modification / Revision	

BENEFICIAR/ BENEFICIARY: ROMANIAN RAILWAY NATIONAL COMPANY

AUTORITATEA DE IMPLEMENTARE/ IMPLEMENTING AUTHORITY: Ministerul Transporturilor / Ministry of Transports

AUTORITATEA CONTRACTANTA / CONTRACTING AUTHORITY: Ministerul Economiei si Finantelor Oficiul de Plati si Contractare Phare / Ministry of Economy and Finances Phare Payments &Contracting Office

Contract / Contract: CFCU 1303/2007

Faza / Phase: PTh+DDE/ PT+DO

Proiect finantat de / Project financed by: UNIUNEA EUROPEANA / EUROPEAN UNION

POS Transport 2007- 2013

prontec | CONSIS PROIECT

Intocmit / Designed	Ing. Cristina Vara-Oros	Scara / Scale: 1:100	PORTOFOLIUL DE PROIECTE PHARE CES 2005 / PHARE CES 2005 PROJECTS PORTFOLIO LOT 1
Verificat / Checked	Ing. Sandu Bogdan	Data / Date: 05.2009	Asistenta tehnica pentru pregatirea unor lucrari de reabilitare pentru tuneluri si podeti de cale ferata / Technical assistance for preparing rehabilitation works required by railway tunnels and bridges
Sef echipa / Team leader	Ing. Stelian Vara-Oros	Cod desen / Drawing Code: PD 58	Denumire desen / Drawing Title: Sucursala RDF / Railway district IASI: Linia cf Railway line Tecuci-Iasi; Pod / Bridge km 268+678; DISPOZITIE GENERALA / GENERAL LAYOUT; Nr. / No.: F 03