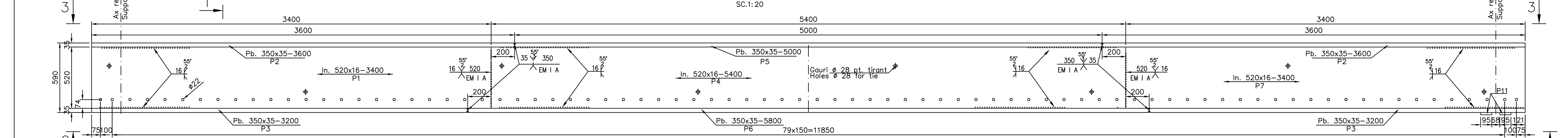
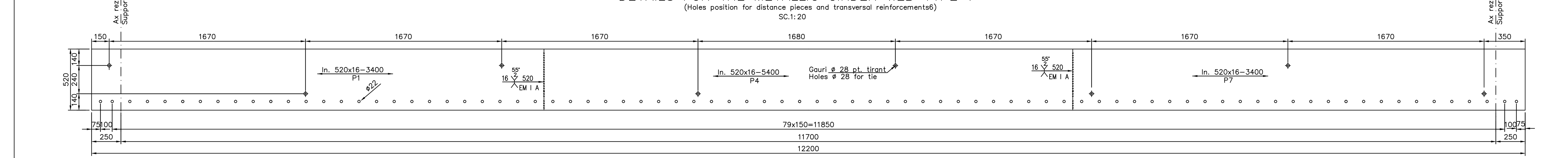
BRASOV   SIGHISOARA

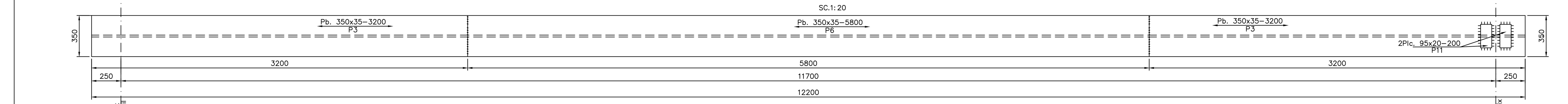
ELEVATIE GRINDA METALICA TIP 1
ELEVATION OF THE METALLIC GIRDER TYPE 1
SC.1:20



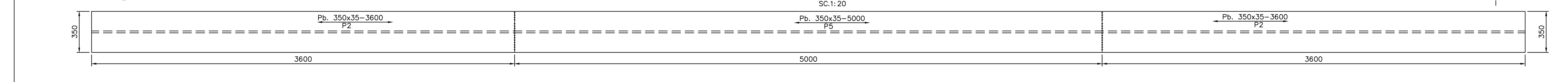
DETALII PENTRU INIMA GRINZII METALICE TIP 1
(Pozitia gaurilor pentru distantieri si armaturi transversale)
DETAILS FOR THE METALLIC GIRDER WEB TYPE 1
(Holes position for distance pieces and transversal reinforcements6)
SC.1:20



VEDERE 2–2/VIEW 2–2
SC.1:20

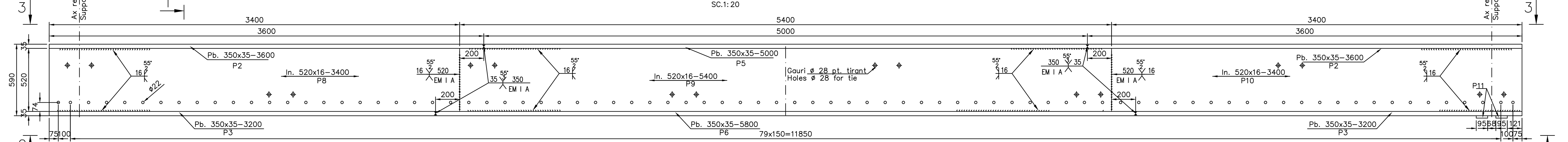


VEDERE 3–3/VIEW 3–3
SC.1:20

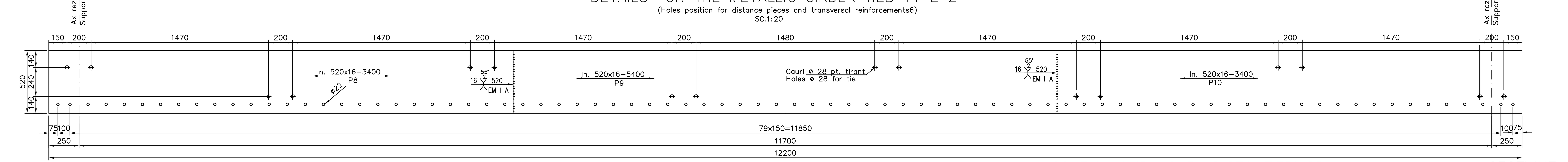


BRASOV   SIGHISOARA

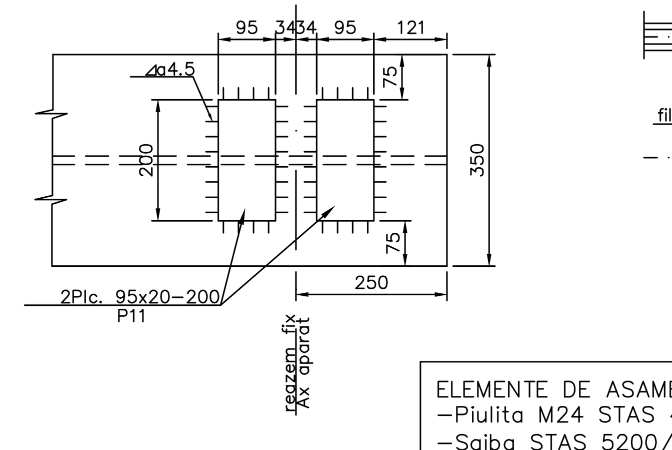
ELEVATIE GRINDA METALICA TIP 2
ELEVATION OF THE METALLIC GIRDER TYPE 2
SC.1:20



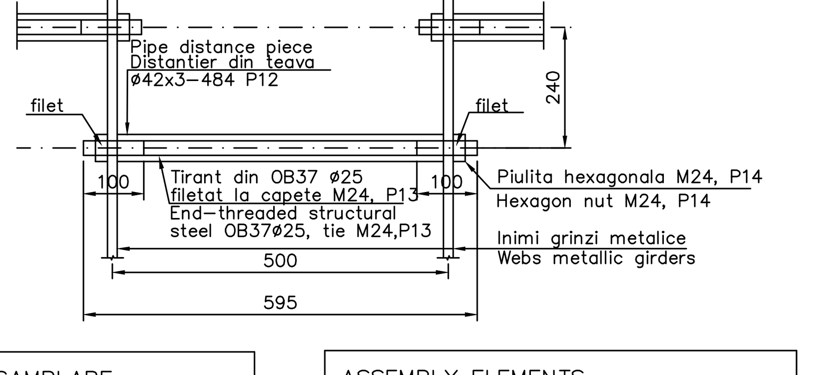
DETALII PENTRU INIMA GRINZII METALICE TIP 2
(Pozitia gaurilor pentru distantieri si armaturi transversale)
DETAILS FOR THE METALLIC GIRDER WEB TYPE 2
(Holes position for distance pieces and transversal reinforcementsl)
SC.1:20



DETALIU DE MONTARE PLACUTE APARAT DE REAZEM FIX
DETAIL TO MOUNT THE FIXED BEARING BLOCK PLATES
sc. 1:10



DETALIU DE PRINDERE A GRINZILOR METALICE
DETAIL FOR METALLIC GIRDERS FASTENING
SC.1:10



ELEMENTE DE ASAMBLARE
- –Piulita M24 STAS 4971–88 gr.8
- –Saiba STAS 5200/4–91–24–OL 34

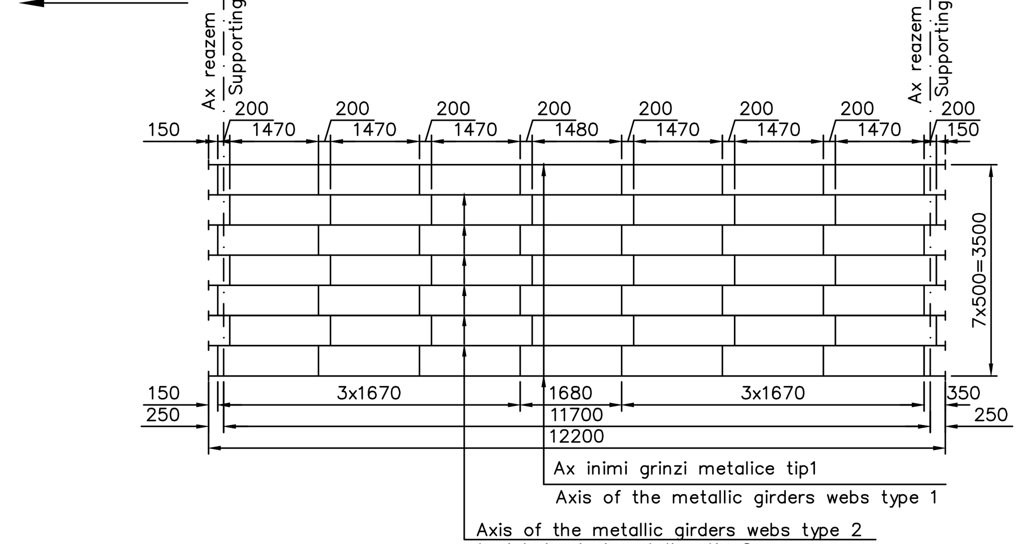
ASSEMBLY ELEMENTS
- –Nut M24 STAS 4971–88 gr.8
- –Washer STAS 5200/4–91–24–OL 34

EXTRAS DE MATERIAL PENTRU SOLIDARIZAREA GRINZILOR METALICE PENTRU UN TABLIER DE CALE FERATA SIMPLA
TABLE OF MATERIALS TO JOIN THE METALLIC GIRDERS FOR SINGLE TRACK RAILWAY BRIDGE DECK

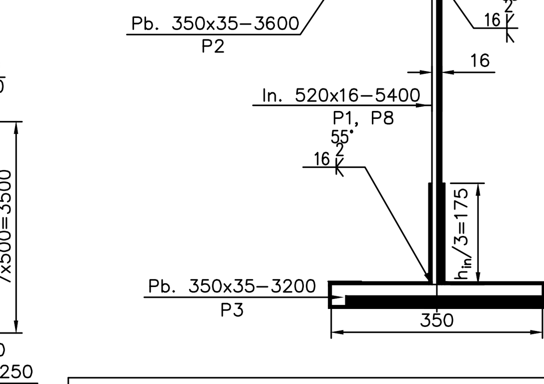
Poz.	Denumire	Dimensiuni	Nr. buc. asemenea	Greutate OL37 EP kg/ml	Greutate OL37 EP kg/buc.	Greutate OL37 EP Total(kg)
P12	Distantier teava Pipe distance piece	ø42x3–484	56	2.88	1.40	78
P13	Tirant OB37 Threaded OB37	ø25, L=595	56	3.85	2.29	130
P14	Piulite Nuts	M24	112	–	0.10	11
P15	Saibe Washers	M24	112	–	0.023	3
					Total(kg)	225

SCHEMA AMPLASARII DISTANTIERILOR
SKETCH FOR THE DISTANCE PIECES LOCATION
SC.1:100

BRASOV   SIGHISOARA



SECTIUNE 1–1
1–1 SECTION
sc. 1:10



MATERIALE
(– OL37 EP STAS 12187–88 elementele grinzilor metalice.)
– $S275J_3G_3$ EN 10025/2004

EXTRAS DE MATERIAL PENTRU O GRINDA METALICA TIP 1 OL37–EP
MEASURING MATERIAL FOR UNE METALLIC GIRDERS TYPE 1 OL37–EP

Poz.	Denumire	Dimensiuni	Nr. buc. asemenea	Greutate OL37 EP kg/ml	Greutate OL37 EP kg/buc.	Greutate OL37 EP Total(kg)
P1	Inima	520x16–3400	1	65.31	222.10	222
P2	Platbanda superioara	350x35–3600	2	96.16	346.20	693
P3	Platbanda inferioara	350x35–3200	2	96.16	307.70	616
P4	Inima	520x16–5400	1	65.31	352.70	353
P5	Platbanda superioara	350x35–5000	1	96.16	480.80	481
P6	Platbanda inferioara	350x35–5800	1	96.16	557.70	558
P7	Inima	520x16–3400	1	65.31	222.10	222
P11	Placute ap. fixt	95x20–200	2	14.92	2.98	6
					Total(kg)	3154
					Sudura 3%	94
					Total(kg)	3250

TOTAL PENTRU UN TABLIER: 2 grinzi x 3250kg=6500kg
TOTAL FOR 1 DECK: 2 girders x 3250kg=6500kg

EXTRAS DE MATERIAL PENTRU O GRINDA METALICA TIP 2 OL37–EP
MEASURING MATERIAL FOR UNE METALLIC GIRDERS TYPE 2 OL37–EP

Poz.	Denumire	Dimensiuni	Nr. buc. asemenea	Greutate OL37 EP kg/ml	Greutate OL37 EP kg/buc.	Greutate OL37 EP Total(kg)
P8	Inima	520x16–3400	1	65.31	222.10	222
P2	Platbanda superioara	350x35–3600	2	96.16	346.20	693
P3	Platbanda inferioara	350x35–3200	2	96.16	307.70	616
P9	Inima	520x16–5400	1	65.31	352.70	353
P5	Platbanda superioara	350x35–5000	1	96.16	480.80	481
P6	Platbanda inferioara	350x35–5800	1	96.16	557.70	558
P10	Inima	520x16–3400	1	65.31	222.10	222
P11	Placute ap. fixt	95x20–200	2	14.92	2.98	6
					Total(kg)	3154
					Sudura 3%	94
					Total(kg)	3250

TOTAL PENTRU UN TABLIER: 6 grinzi x 3250kg=19500kg
TOTAL FOR 1 DECK: 6 girders x 3250kg=19500kg

(TOTAL OL37–EP=26000kg)
TOTAL $S275J_3G_3$=26000kg

NOTA

1. La executia in uzina a grinzilor metalice sudate se vor respecta cu strictete prevederile STAS 9407–75.
2. In uzina se va aplica o protectie anticoroziva pe talpile inferioare si pe o treime din inima grinzilor metalice.
3. Protectia anticoroziva se va executa dintr–un strat de baza alcatuit dintr–o pelicula de zinc de 80μm grosime si doua straturi de invelis poliuretanic, fiecare de 85μm.
   Stratul de baza si un invelis poliuretanic se vor aplica in uzina, urmand ca ultimul strat poliuretanic sa fie aplicat pe santier dupa finalizarea lucrarilor la suprastructura.
4. Pregatirea suprafetelor metalice in vederea aplicarii procedeelor de protectie anticoroziva se face prin:
   - –Perierea de rugina cu ajutorul unor perii de sarma.
   - –Spalarea suprafetelor metalice.
   - –Degresarea cu solventi organici prin stergere sau cu emulsii.
   - –Dupa degresare se spala cu jet de apa pentru indepartarea urmelor de detergent. Solutia pentru degresare va fi aleasa astfel incat sa nu afecteze mediul.

   Curatirea suprafetelor se va face conform gradului SA 1 1/2.

NOTE

1. The prvisions STAS 9407–75 will be strichy observed when the welded metallic girders are manufactered in the factory.
2. In the plant, corrosion protection will be applied on the lower flanges and on one third of the web of metallic girders.
3. The protection against corrosion will consist in a primary layer made of a zinc membrane (80μm thickness) and two polyurethane covering layer, each of 85μm thickness.
   The primary layer and the first polyurethane covering layer will be applied in the factory and the second polyurethane layer will be applied on site, after completing the superstructure works. finalizarea lucrarilor la suprastructura.
4. Preparing the metallic surfaces in order to apply the dorrosion–proof procedures shall be made by:
   - –Rust removal using wire brushes.
   - –Washing the metallic surfaces.
   - –Organic solvent degreasing by wiping or using emulsions.
   - –After degreasing, the surface is washed by water jet to eliminate the detergent stains. The solution selected for degreasing shall not affect the environment.

   Cleaning the surfaces is made according to the SA 1 1/2.

NOTA/NOTE

Placutele de la aparatele de reazem se vor samfrena cu un unghi de 60°.
Gaurile din inima pentru armatura de rezistenta vor fi alezate.

The plates of the bearing blocks will be chamfered at an angle of 60°.
The web holes for the strong reinforcements will be bored.

Indice / Index	Data / Date	Modificare / Modification/Revision	Proiectant / Designer	Aprobat Consultant / Approved Consultant	Aprobat CFR / Approved CFR
D					
C					
B					
A	12.2011	Revizia 1 1 Revision	Campan Maria		

GUVERNUL ROMANIEI / ROMANIAN GOVERNMENT
PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ / EUROPEAN UNION FINANCED PROJECT

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

ITALFERR GRUPPO FERROVIE DELLO STATO Joint Venture leader · Scott Wilson · OBERMEYER PLANEN + BERATEN GmbH · TECNIC Consulting Engineers

CONSULTANT / CONSULTANT

			Data / Date	Semnătură / Signature
Aprobat / Approved	Şef proiect / Project manager	R. Liuzza		
Aprobat / Approved	Coordonator Secţiune 1 / Section 1 Coordinator	C. Gambelli		
Verificat / Checked	Expert Cheie / Checking Expert	V. Kallidromitis		

SUBCONTRACTANT / SUBCONTRACTOR
AREX COMPANY

Aprobat / Approved	Responsabil Subconsultant / Subconsultant Responsible	A. Dinulescu Stanciu	11.2011	
Întocmit / Elaborated	Proiectant / Designer	Campan Maria	11.2011	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h,
Tronsonul : Braşov - Sighişoara
Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Braşov - Sighişoara

Proiect/Project 2004/RO/16/P/PA/003
Faza / Phase: D.E. / E.D.

Denumire desen / Drawing Title : INTERVAL / SECTION RACOS
Viaduct Km 220+762.028 - D=2x55.0m+80.0m+55.0m +11.7m+2x18.0m-GRINZI METALICE TABLIER D=11.70m
Bridge Km 220+762.028 - D=2x55.0m+80.0m+55.0m +11.7m+2x18.0m-METALLIC GIRDERS DECK D=11.70m

Codificare / Codification System	Scara / Scale	LOT / LOT	Nr. / No
E A 5 1 · 0 1 · E · 1 1 · B C · P V · 0 2 · 1 · 3 · 0 1 6 · 1	1:20;1:10;1:100		01 / 01

297x870