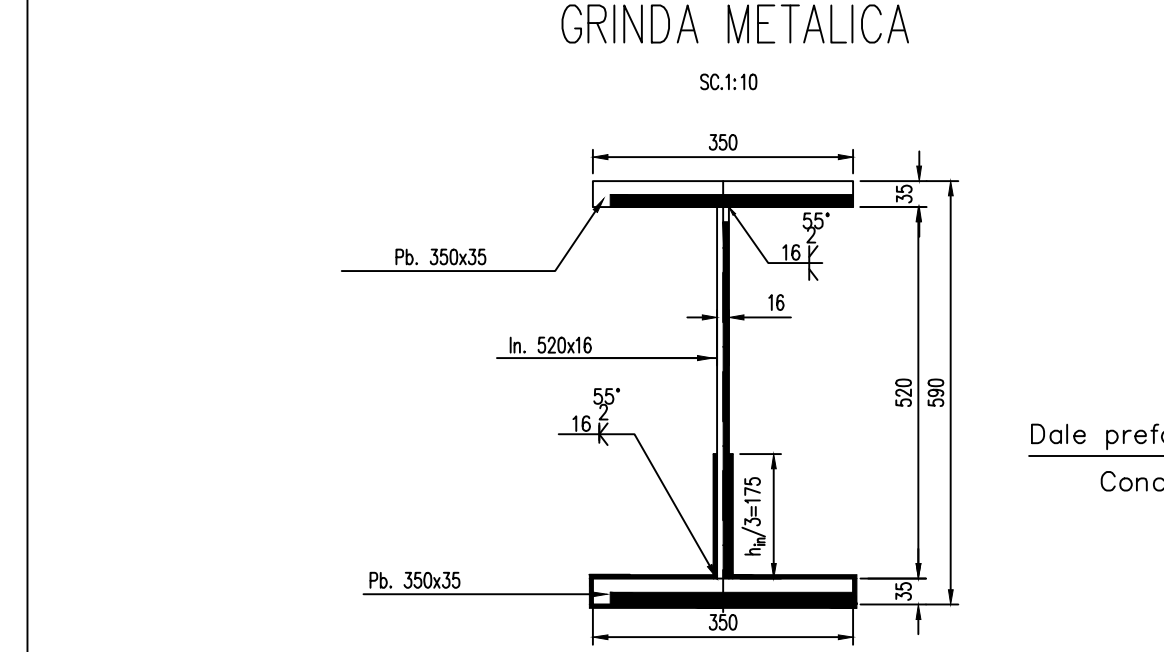
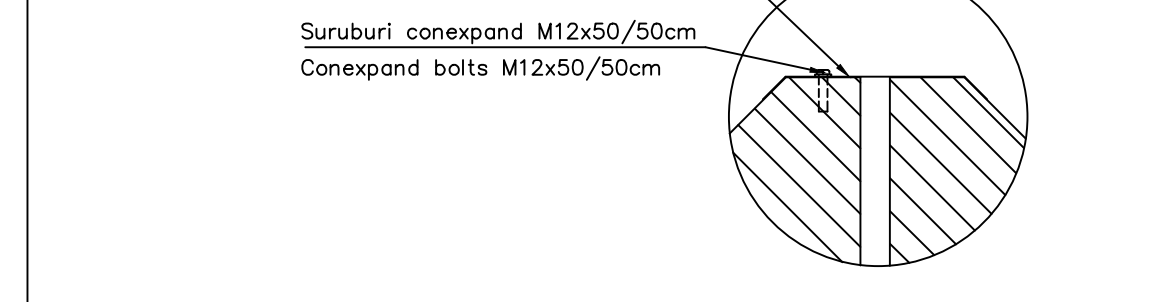
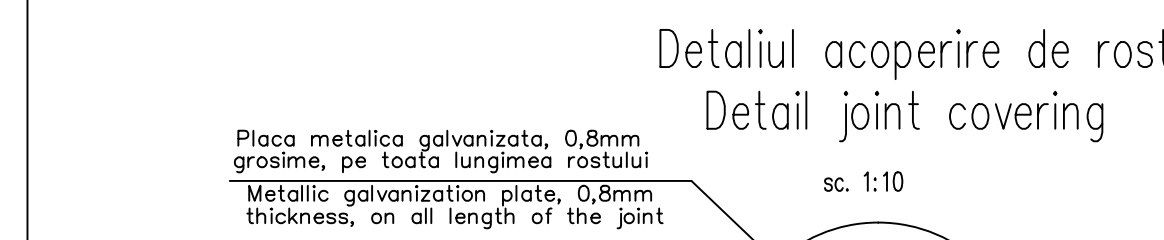


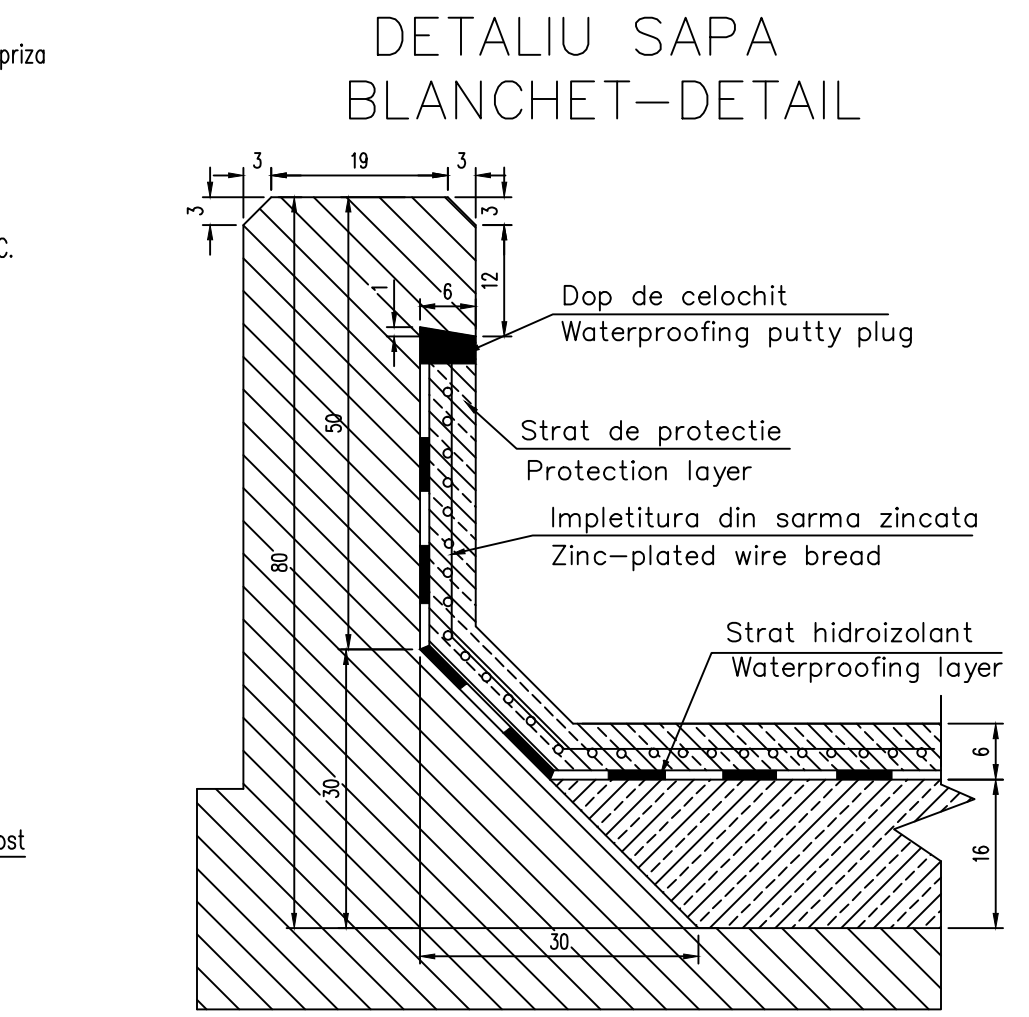
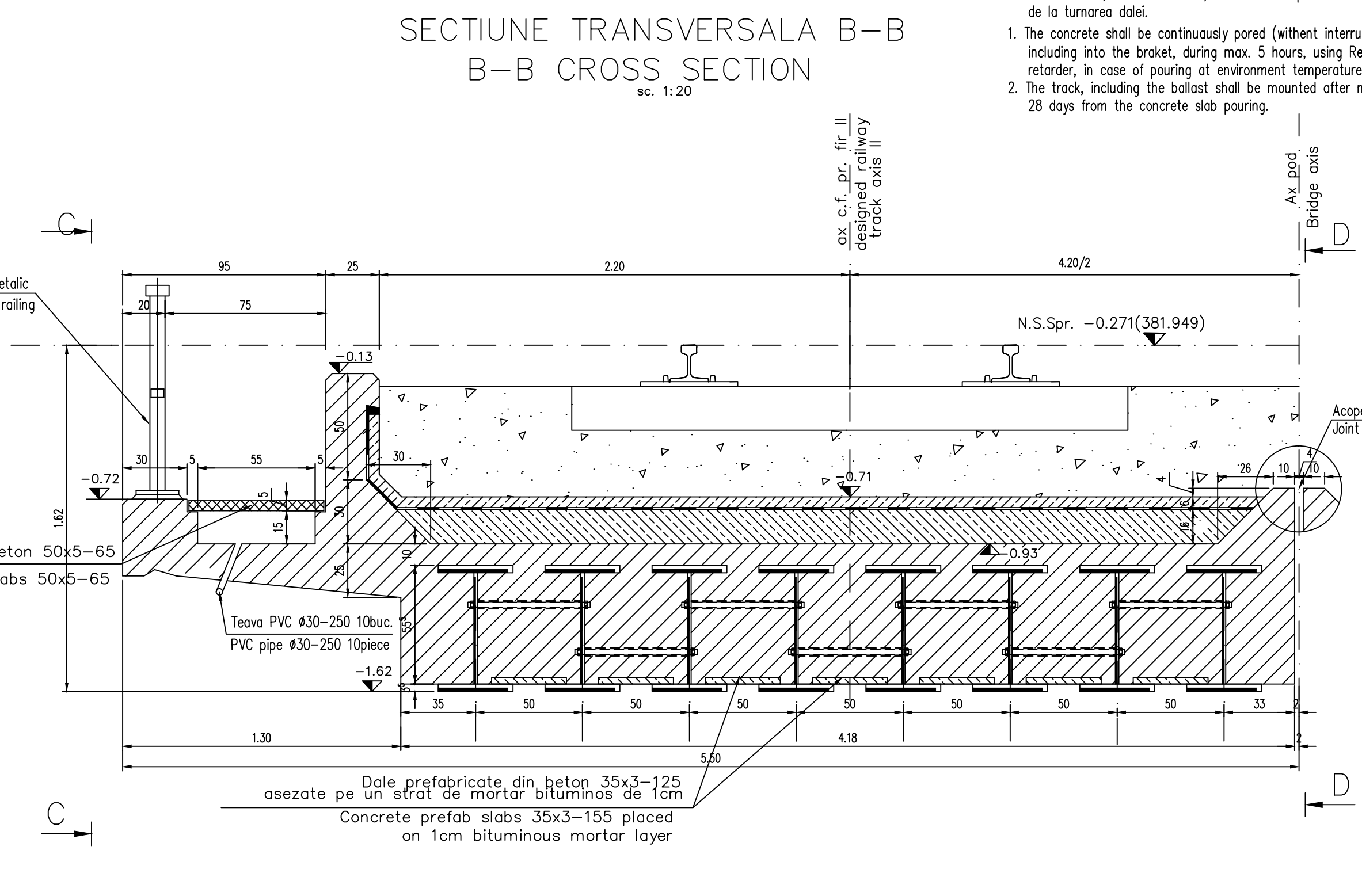
LEGENDA BETOANELOR/CONCRETE LIST

	Beton armat in grinzi inglobate de clasa Concrete in bearings and in the deck slabs C 30/37-CEM II/A-S 42,5-(XC4+XF3+XA1)-A/C=0,50-Dmax.16-CI 0,20
	Beton de panta. Concrete in the protection layer of waterproofing system. C 25/30-CEM II/A-S 32,5-(XF3)-A/C=0,55-Dmax.16-CI 0,20
	Beton in stratul de protectie a hidroizolatiei Concrete in the protection layer of waterproofing system C 25/30-CEM II/A-S 32,5-(XC4+XF3)-A/C=0,50-Dmax.16-CI 0,20
	Beton in dalele prefabricate pentru trotuare Concrete in the prefab slabs required for the sidewalks C 25/30-CEM II/A-S 32,5-(XC4+XF3+XA1)-A/C=0,50-Dmax.22-CI 0,20
	Beton in dalele prefabricate pentru grinzi inglobate in beton Concrete in the prefab slabs required for the decks made out of steel girders embeded in to concrete C 35/45-CEM II/A-S 42,5-(XC4+XF3+XA2)-A/C=0,50-Dmax.8-CI 0,10

In cazul in care temperatura in timpul turnarii este scazuta, se vor folosi cimenturile cu rezistenta initiala mare, N si aditivi acceleratori, iar in cazul turnarii pe timp cald, cimenturile cu rezistenta initiala uzuala, N si aditivi inarziatori (conf.NE 012/2-2010 si tabelului 2 din SR EN 197-1:2002).  
When the temperature during the casting is low, cements with high initial resistance, R and accelerating additives shall be used and when it is cast during warm weather, cements with common initial resistance, N and delaying additives shall be used (according to the norm NE 012/2-2010 and table 2 for the SR EN 197-1: 2002).



TIP / TYPE	TIP ARMATURA / TYPE REINFORCEMENT	Nr. BUC. / No. PIECE	kg/m	m/buc. / m/piece	kg
TIP 1 / TYPE 1	STNB 6 G.Q.283	70	0.222	8.10	130,00
TIP 2 / TYPE 2	STNB 6 G.Q.283	27	0.222	6.15	37,00
TIP 2 / TYPE 2	STNB 6 G.Q.283	1	0.222	4.50	1,00
TOTAL					168,00kg



Beton:	- C30/37 suprastructura/superstructure
Concrete:	- C30/37 suprastructura/superstructure
Tipul grinzelor:	- grinzi metalice sudate/steel welded girders
Beams type:	- OL 37-EP S275J2G3 (EN 10025/2004)
Otel pentru grinzi:	- S355
Steel for the beams:	- S355
Armatura:	- min. 4cm expunere in aer/air exposed
Reinforcement:	- calculat cu convoiuil T8.5, verificat cu convoiuil UIC 71
Strat de acoperire:	- Metal sau lemn/Steel or wood
Concrete cover:	
Clasa de incarcare:	
Load class:	
Cofraj:	
Formwork:	

ATENIE/ATTENTION

- Turnarea betonului se va face continuu (fara intreruperi), inclusiv in console, in timp de max. 5 ore folosind inarziatori de pizza Replast, in cazul turnarii la temperatura ambianta de peste 10°C.
- Montarea caili, inclusiv balastul, se va face dupa minim 28 zile de la turnarea dalei.

- The concrete shall be continuously poured (without interruptions), including into the bracket, during max. 5 hours, using Replast retarder, in case of pouring at environment temperature over 10°C.
- The track, including the ballast shall be mounted after minimum 28 days from the concrete slab pouring.

NOTA

- La executia in uzina a grinzelor metalice sudate se vor respecta cu strictete prevederile STAS 9407-75.
- In uzina se va aplica o protectie anticoroziva pe talpile inferioare si pe o treime din inima grinzelor metalice.
- Protectia anticoroziva se va executa dintr-un strat de baza alcatuit dintr-o pelicula de zinc de 80µm grosime si doua straturi de nivel poluretanic, fiecare de 85µm.
- Stratul de baza si un nivel poluretanic se vor aplica in uzina, urmand ca ultimul strat poluretanic sa fie aplicat pe santier dupa finalizarea lucrarilor la suprastructura.
- Pregatirea suprafetelor metalice in vederea aplicarii procedurilor 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

- The provisions STAS 9407-75 will be strictly observed when the welded metallic girders are manufactured in the factory.
- In the plant, corrosion protection will be applied on the lower flanges and on one third of the web of metallic girders.
- 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.
- Preparing the metallic surfaces in order to apply the corrosion-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.

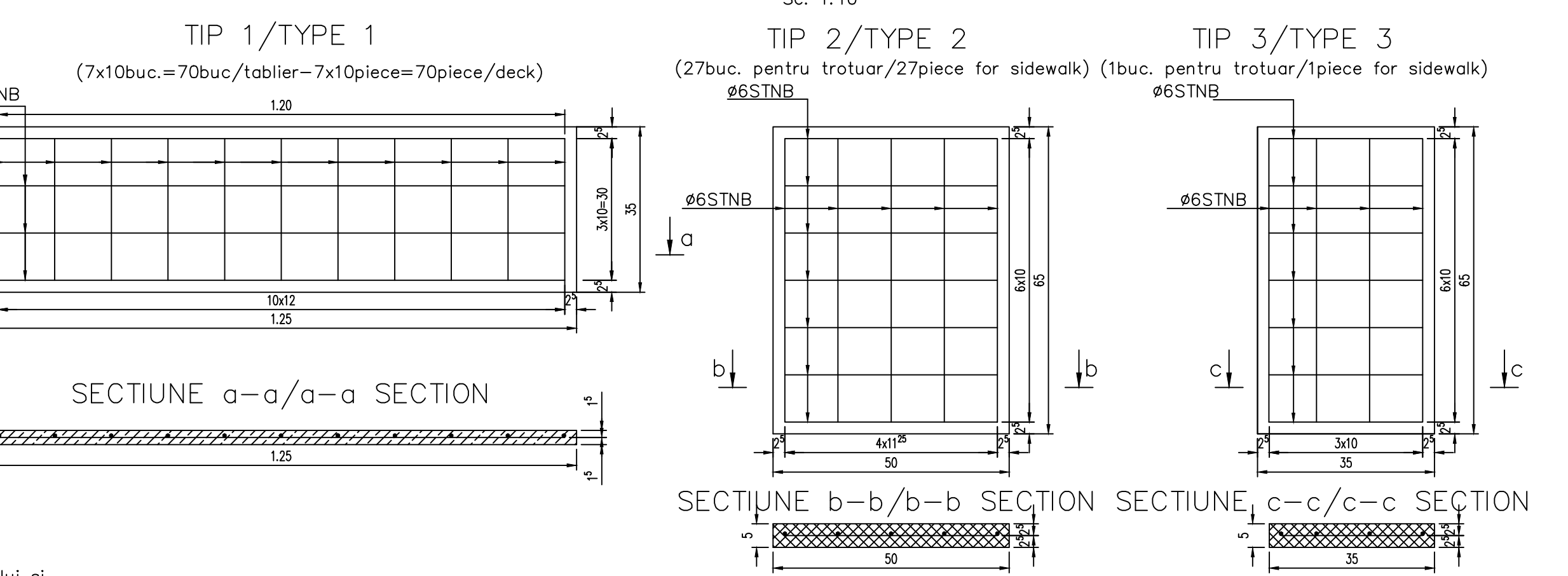
NOTA

- Prezentul plan s-a intocmit pe baza Dispozitiiei Generale
- Toate culturile betonului se vor tesii 25/25mm.
- La executie se vor respecta cu strictete prevederile din "Normativ pentru producerea betonului si executarea lucrarilor din beton, beton armat si beton precomprimat. Partea 1: Producerea betonului", indicativ NE 012/1-2007 si "Normativ pentru producerea betonului si executarea lucrarilor din beton, beton armat si beton precomprimat. Partea 2: Executarea lucrarilor din beton", indicativ NE 012/2-2010, iar verificarea calitatii lucrarilor si receptiunea lor se va face conform normativului CS6-1985.
- Constructia se incadreaza in categoria de importanta B (constructii de importanta deosebita), modelul 1 de asigurare a calitatii si clasa de importanta B, conform HG 766/1997.
- Proiectul va fi verificat la exigentele A4.2; B2.2; D2.2.

NOTE

- This plan was drawn up based on the General Disposition
- All concrete corners will be chamfered 25/25mm.
- The execution will strictly comply with the provisions of "Norm for concrete production and works execution, reinforced and pre-stressed concrete-Part 1: Practice code for concrete production NE 012/1-2007 and "Norm for the concrete production and works execution, reinforced and pre-stressed concrete-Part 2: The execution of concrete works." NE 012/2-2010, and the quality and the reception of the works shall be made accordingly to Norm C 56-1985.
- The construction has been classified in B category of importance (high important constructions), model 1-ensuring the quality and class of importance B according to G.O. 766/97.
- The project will be checked in order to comply with the A4.2; B2.2; D2.2 requirements.

DALE PREFABRICATE DIN BETON ARMATE CU S.T.N.B. / CONCRETE PREFAB SLABS REINFORCED WITH S.T.N.B.



EXTRAS DE ARMATURA STNB PENTRU UN TABLIER DE CALE FERATA SIMPLA / TABLE FOR REINFORCEMENTS STNB FOR SINGLE YRAK RAILWAY DECK

TIP / TYPE	TIP ARMATURA / TYPE REINFORCEMENT	Nr. BUC. / No. PIECE	kg/m	m/buc. / m/piece	kg
TIP 1 / TYPE 1	STNB 6 G.Q.283	70	0.222	8.10	130,00
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TOTAL					168,00kg

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D					
C					
B					
A	12.2011	Revizua 1 / Revision	Dinu Andreea	Aprobat Consultant / Approved Consultant	Aprobat CFR / Approved CFR
Index	Date	Modificari / Modifications	Proiectant / Designer	Aprobat Consultant / Approved Consultant	Aprobat CFR / Approved CFR

GUVERNUL ROMANIEI / ROMANIAN GOVERNMENT  
PROIECT FINANTAT DE UNIUNEA EUROPEANA / EUROPEAN UNION FINANCED PROJECT

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

CLIENT / CLIENT

ITALFERR, Scott Wilson, OBERMEYER, TECNIC

CONSULTANT / CONSULTANT

Aprobat / Approved	Self project / Project manager	R. Liuzza	Data / Date	Semnatura / Signature
Intocmit / Elaborated	Proiectant / Designer	Dinu Andreea	11.2011	
Aprobat / Approved	Coordonator Sectiune 1 / Section 1 Coordinator	C. Gambelli		
Verificat / Checked	Expert Chief / Checking Expert	V. Kallidromitis		

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat / Approved	Responsabil Subcontractant / Subcontractant Responsible	A.Stanciu - Dinulescu	11.2011	
Intocmit / Elaborated	Proiectant / Designer	Dinu Andreea	11.2011	

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componenta a coridorului IV Pan European, pentru circulatia trenurilor cu viteza maxima de 160 km/h, Tronsonul : Brasov - Sighisoara  
Rehabilitation of the railway line Brasov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h, Section : Brasov - Sighisoara

Denumire desen / Drawing Title : INTERVAL / SECTION ARCHITA - VANATORI  
POD / BRIDGE Km 267+963.152 D=12.00m+35.00m+12.00m  
COFRAJ SUPRASTRUCTURA LINIA 2 - TABLIER 3  
SUPERSTRUCTURE SHUTTERING RAILWAY 2 - DECK 3

Codificare / Codification System: EAS1 01 E 16 BB PV 04 0 3 012 1