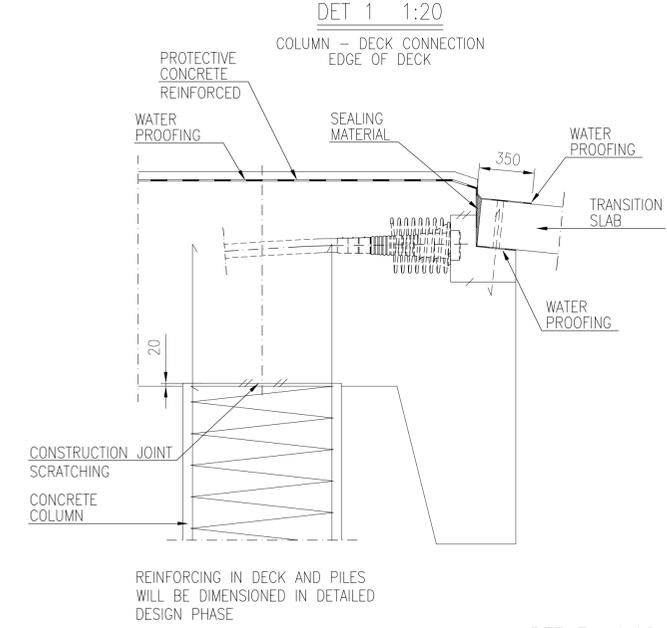


1) THE WIDTH OF THE TRACK BED 12.5 m IN THE END OF THE BRIDGE, AFTER 10 m WIDTH WILL BE CHANGED ACCORDING TO NORMAL TRACK BED

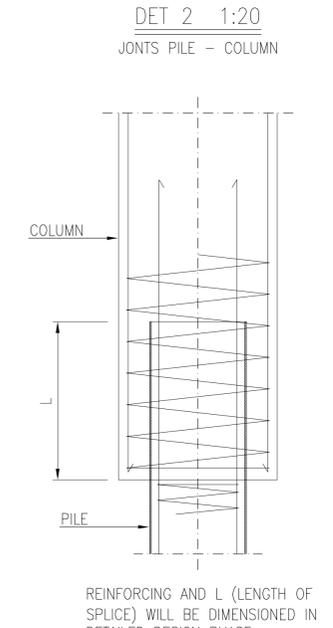
CENTER POINT OF THE BRIDGE
NEW km = 022+946

***) BRIDGE WILL BE BUILT MIN. 1 % INCLINATION ACCORDING TO VERTICAL GEOMETRY OF TRACK

3) RETAINING WALL UNDER THE DECK



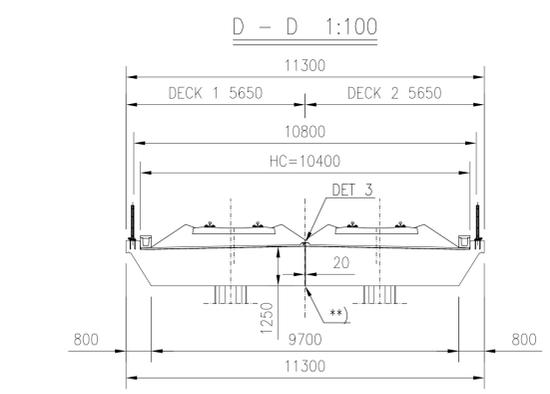
REINFORCING IN DECK AND PILES WILL BE DIMENSIONED IN DETAILED DESIGN PHASE



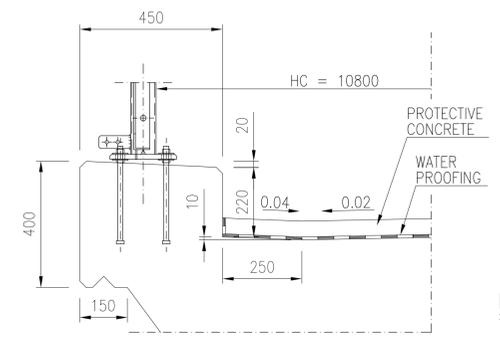
REINFORCING AND L (LENGTH OF SPLICE) WILL BE DIMENSIONED IN DETAILED DESIGN PHASE

- CONCRETE: C35/45
Cmin=40 mm
- REINFORCING STEEL: B500B
- REINFORCING MESH: B500K
- PILES / FOUNDATION: DRILLED PILES D610x14,2 S355J2H
- TRANSITION SLABS: PREFABRICATED TRANSITION SLABS
2 x 2 x 4 x 1.0 m x 5,0 m
OR CAST IN SITU 2 x 2 x 4,0 m x 5,0 m
CONCRETE C35/45
- CONSTRUCTIONAL STEEL: S355 J2, HOT-DIP ZINC COATED
- RAILING / FENCE: h = 1.1 m
S355J2H
HORIZONTAL LINE LOAD 1,0 KN/m
VERTICAL POINT LOAD 1,0 KN
- SURFACE STRUCTURE: WATER PROOFING MATERIAL 10 mm
PROTECTIVE CONCRETE 50 mm
BALLAST 550 mm
- FILLING: REQUIREMENTS ACCORDING TO TRACK INTERMEDIATE LAYER

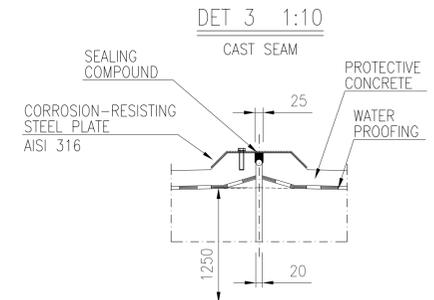
CLT = CENTER LINE of the TRACK
HC = HORIZONTAL CLEARANCE
LSD = LOWER SURFACE of the DECK
USR = UPPER SURFACE of the RAIL



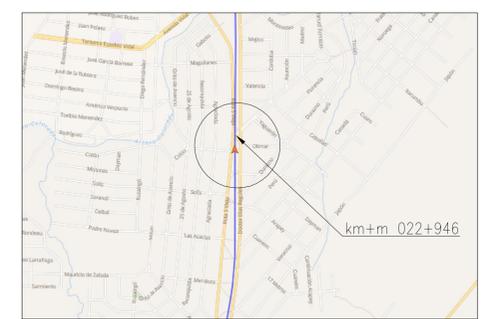
- ESTIMATED AMOUNT OF CONCRETE
- PILES: 24 m³
- COLUMNS: 46 m³
- SUPERSTRUCTURE: 665 m³
- ESTIMATED PRESTRESSING STEEL
- SUPERSTRUCTURE: 23 kg/m³ (CONCRETE)
- ESTIMATED REINFORCING STEEL
- PILES: 3600 kg
- COLUMNS: 260 kg/m³ (CONCRETE)
- SUPERSTRUCTURE: 90 kg/m³ (CONCRETE)
- TRANSITION SLABS: 325 kg/m³ (CONCRETE)
- PROTECTIVE CONCRETE: 3 kg/m²



B - B 1:100



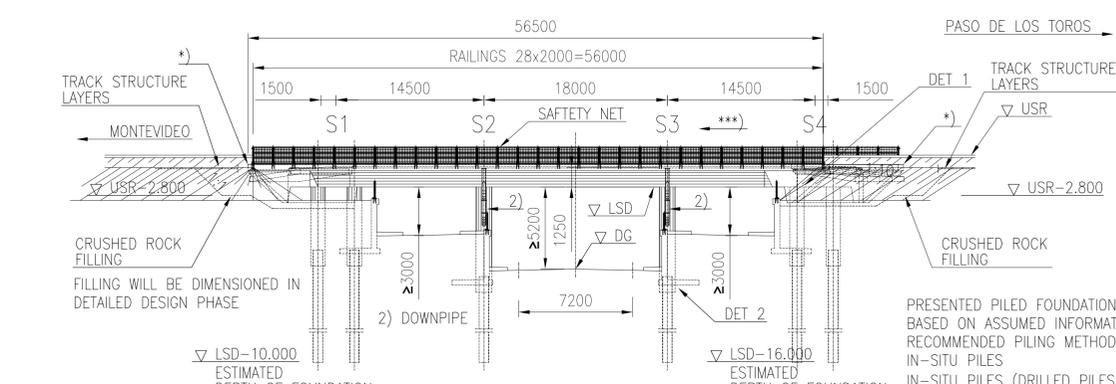
C - C 1:100



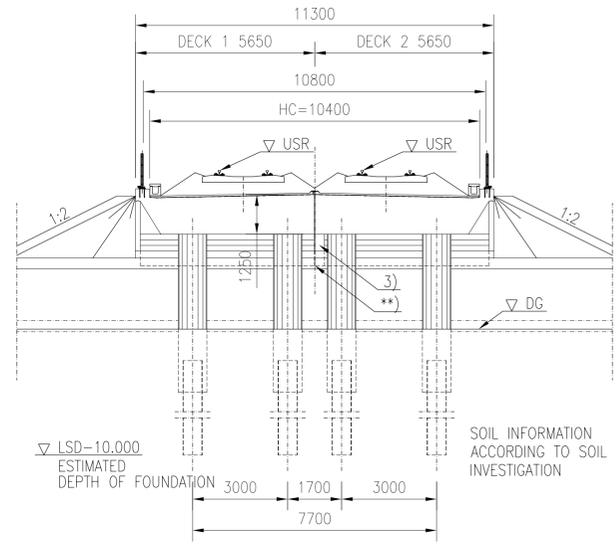
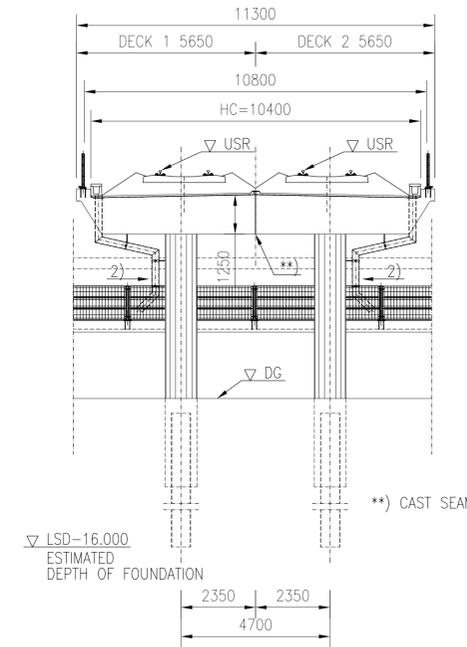
) THE LENGTH OF THE WING WALLS WILL BE VERIFIED IN DETAILED DESIGN PHASE

A - A 1:200

***) BRIDGE WILL BE BUILT MIN. 1 % INCLINATION ACCORDING TO VERTICAL GEOMETRY OF TRACK



PRESENTED PILED FOUNDATION STRUCTURE IS BASED ON ASSUMED INFORMATION OF SOIL. RECOMMENDED PILING METHOD: IN-SITU PILES
IN-SITU PILES (DRILLED PILES) ENABLE
-TO DRIVE PILES THROUGH CURRENT STONE ABUTMENT -TO MAINTAIN REQUIRED PART OF GROUND SUPPORT
-TO MINIMIZE EXCAVATION AND FILLING IN THE END OF THE BRIDGE
-TO SHORTEN THE NEEDED CONSTRUCTION TIME



SOIL INFORMATION ACCORDING TO SOIL INVESTIGATION

BRIDGE TYPE	PRESTRESSED CONCRETE BRIDGE
	CONTINUOUS CANTILEVER PLATE
SPANS	1.50m + 14.50m + 18.00m + 14.50m + 1.50m
HORIZONTAL CLEAR SPAN	10.80 m
VERTICAL CLEARANCE	-

VERSION
23.10.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project Railway Project			
Supplier		Design phase Pre-engineering, Phase 2 Content Underpass bridge Olimar Preliminary general drawing Km+m 022+946			
Drawer	23.10.2017	Ilkka Tiito	Loading		
Designer	23.10.2017	Ilkka Tiito	Coordinate and elevation reference system		
Supervisor	23.10.2017	Reima Niklander	Railway line		
Accept.	-	-	Archive	Type	Number
Cust. acc.	-	-	UP	xxxx	1