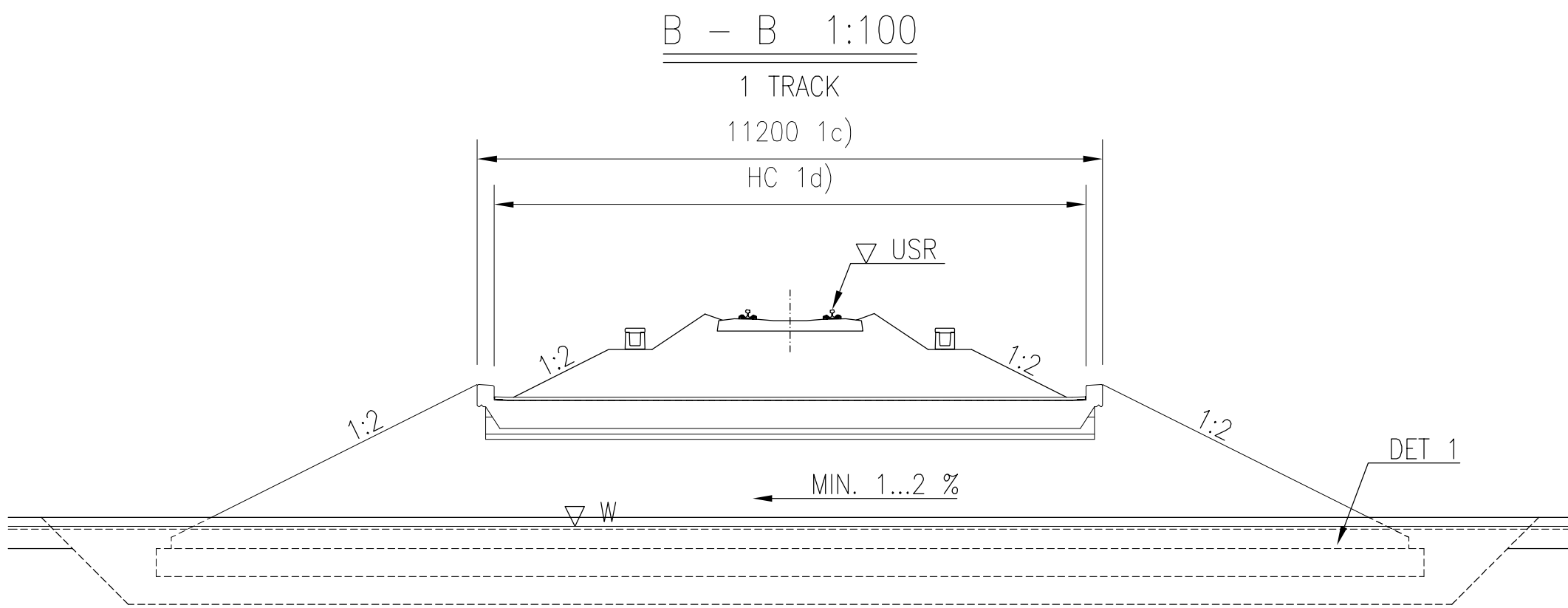
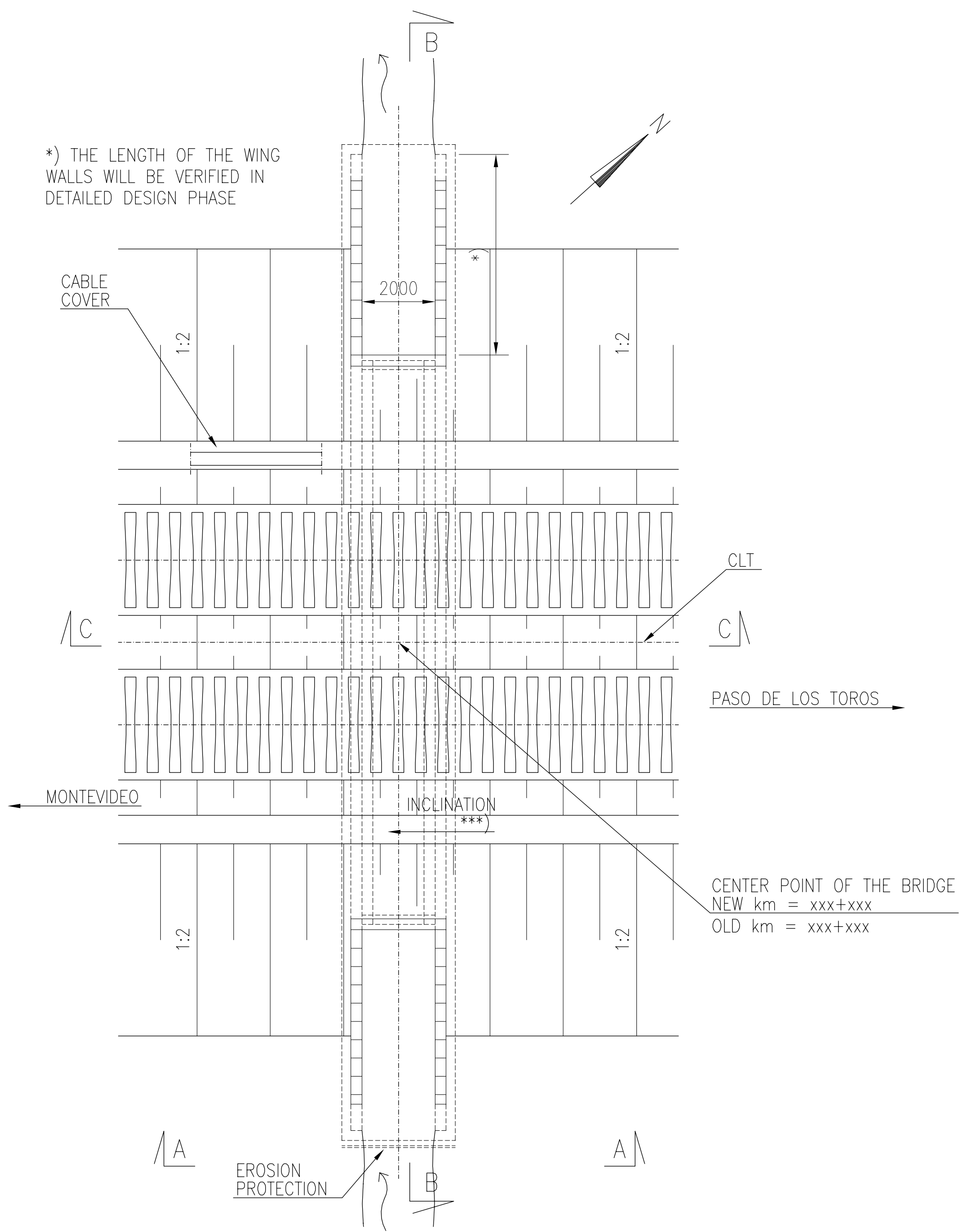
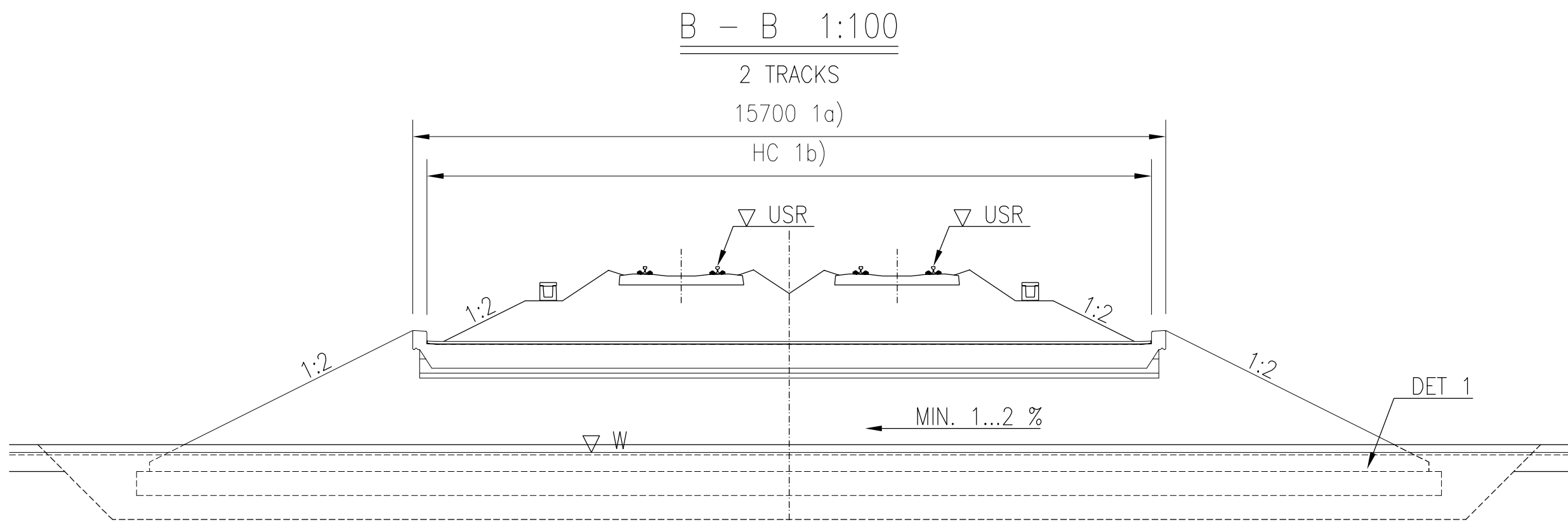


CULVERT BRIDGE 2 m 1:100



1c) 1d) THE LENGTH OF THE CULVERT BRIDGE AND HC ARE DEPENDING ON THE EMBANKMENT HEIGHT AND AMOUNT OF TRACKS.
EACH CULVERT BRIDGE SHALL BE VERIFIED IN THE DETAILED DESIGN PHASE.



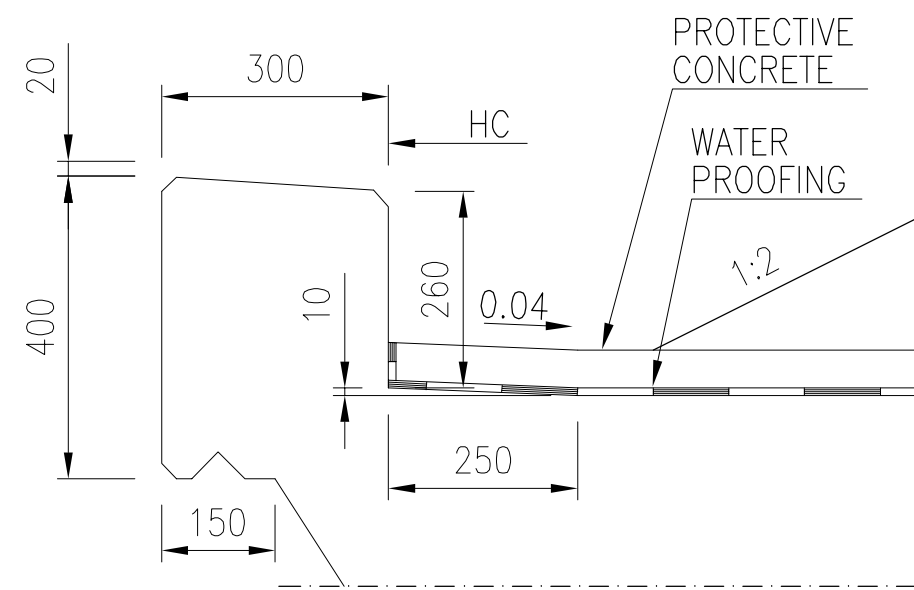
1a) 1b) THE LENGTH OF THE CULVERT BRIDGE AND HC ARE DEPENDING ON THE EMBANKMENT HEIGHT AND AMOUNT OF TRACKS.
EACH CULVERT BRIDGE SHALL BE VERIFIED IN THE DETAILED DESIGN PHASE.

CULVERT FOR 2 TRACKS

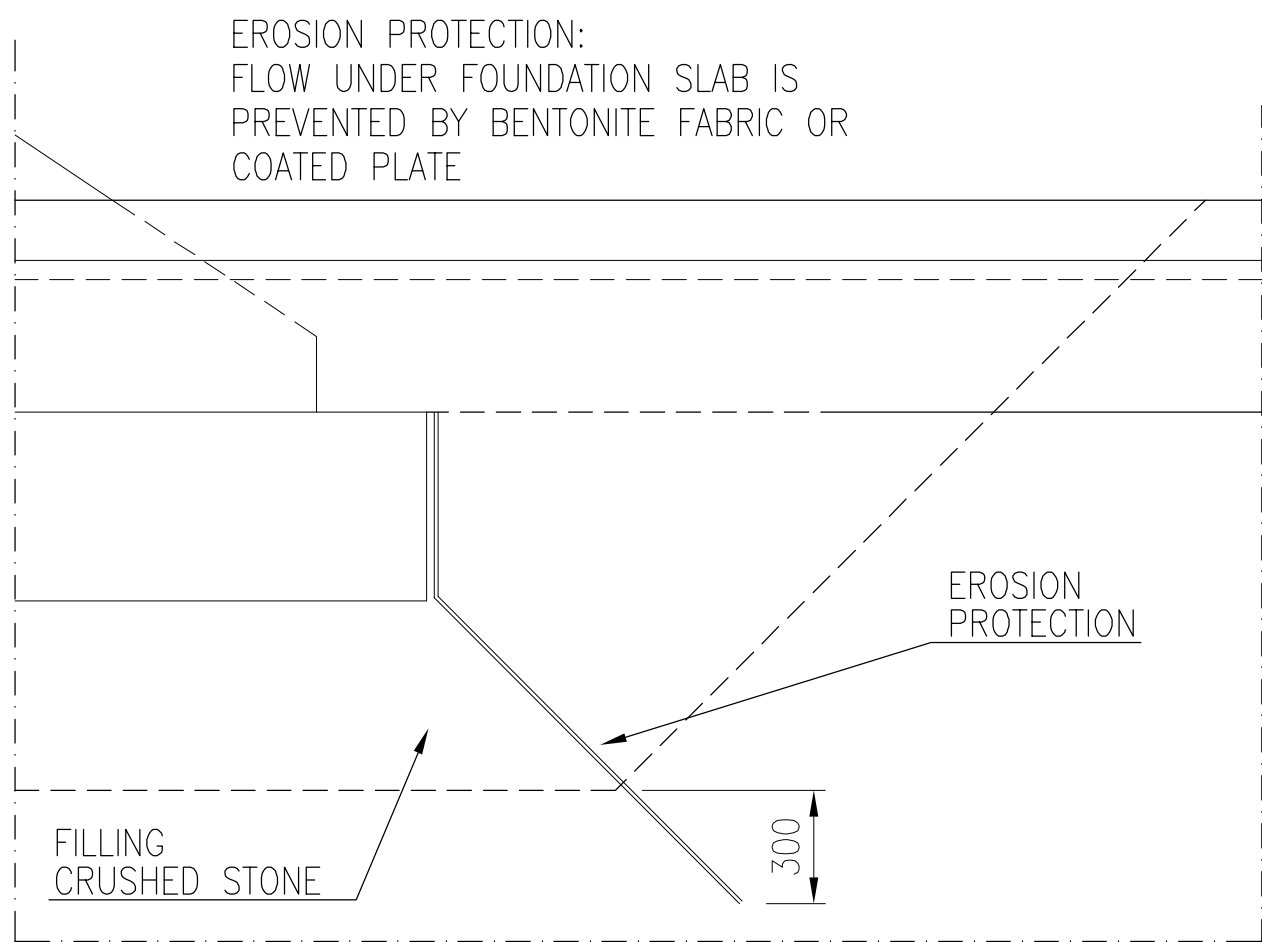
ESTIMATED AMOUNT OF CONCRETE
FOUNDATION SLAB: 42 m³
FRAME: 55 m³

ESTIMATED REINFORCING STEEL
FOUNDATION SLAB: 100 kg
FRAME: 190 kg/m³ (CONCRETE)
TRANSITION SLABS: 325 kg/m³ (CONCRETE)

EDGE BEAM 1:10



DET 1 1:20



CONCRETE: C35/45
Cmin=40 mm

REINFORCING STEEL: B500P
REINFORCING MESH: B500K

TRANSITION SLABS: PREFABRICATED TRANSITION SLABS FOR 1 TRACK
2 x 4 x 1.0 m x 5,0 m
OR CAST IN SITU 2 x 4,0 m x 5,0 m

PREFABRICATED TRANSITION SLABS FOR 2 TRACKS
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)

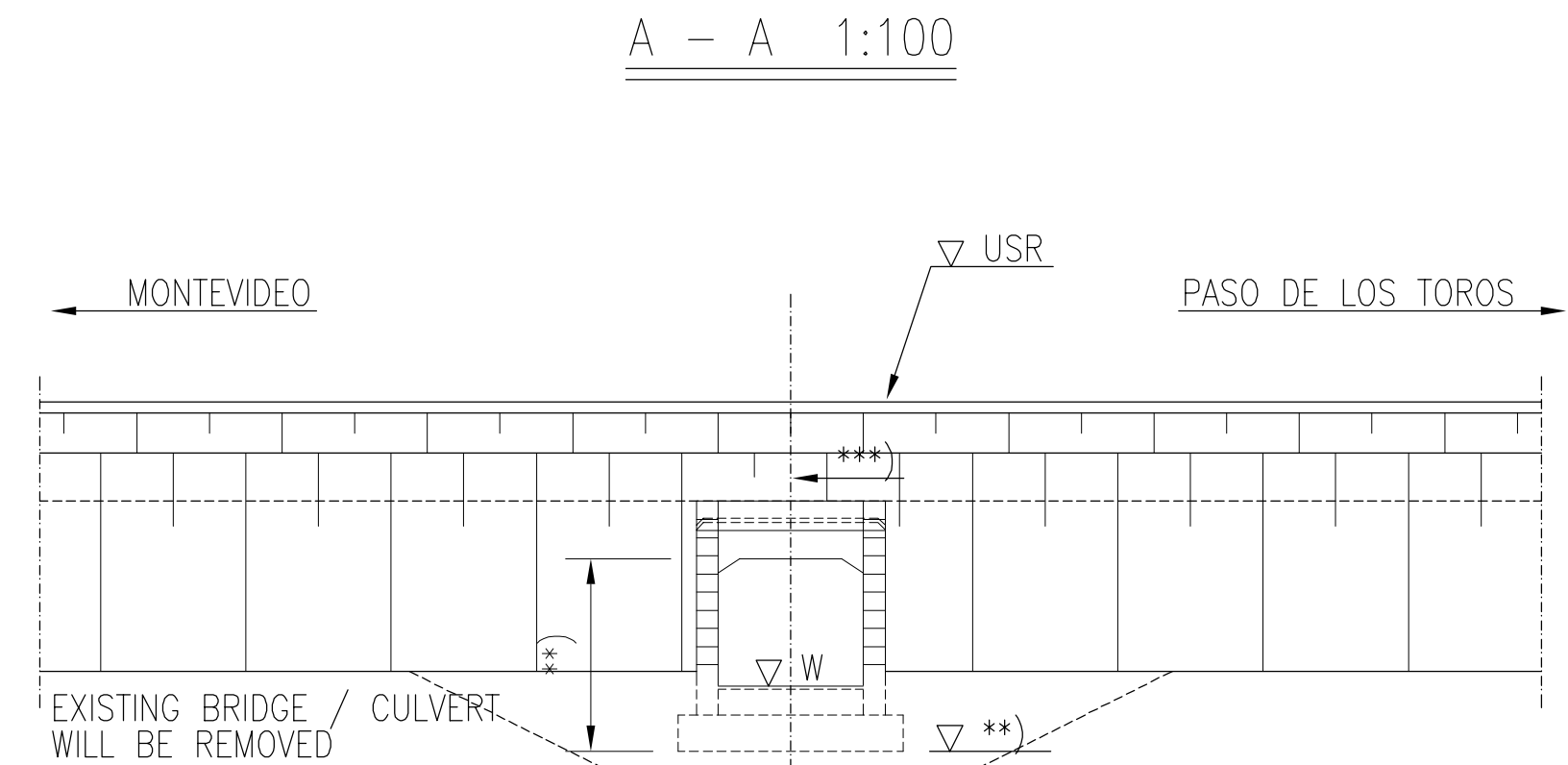
FILLING: REQUIREMENTS ACCORDING TO TRACK INTERMEDIATE LAYER

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

MAP

BRIDGETYPE	REINFORCED CONCRETE BRIDGE
	FRAME PLATE
SPANS	2.00 m
HORIZONTAL CLEAR SPAN	—
HORIZONTAL CLEARANCE	1 TRACK: >6.30 m; 2 TRACKS: >10.80 m

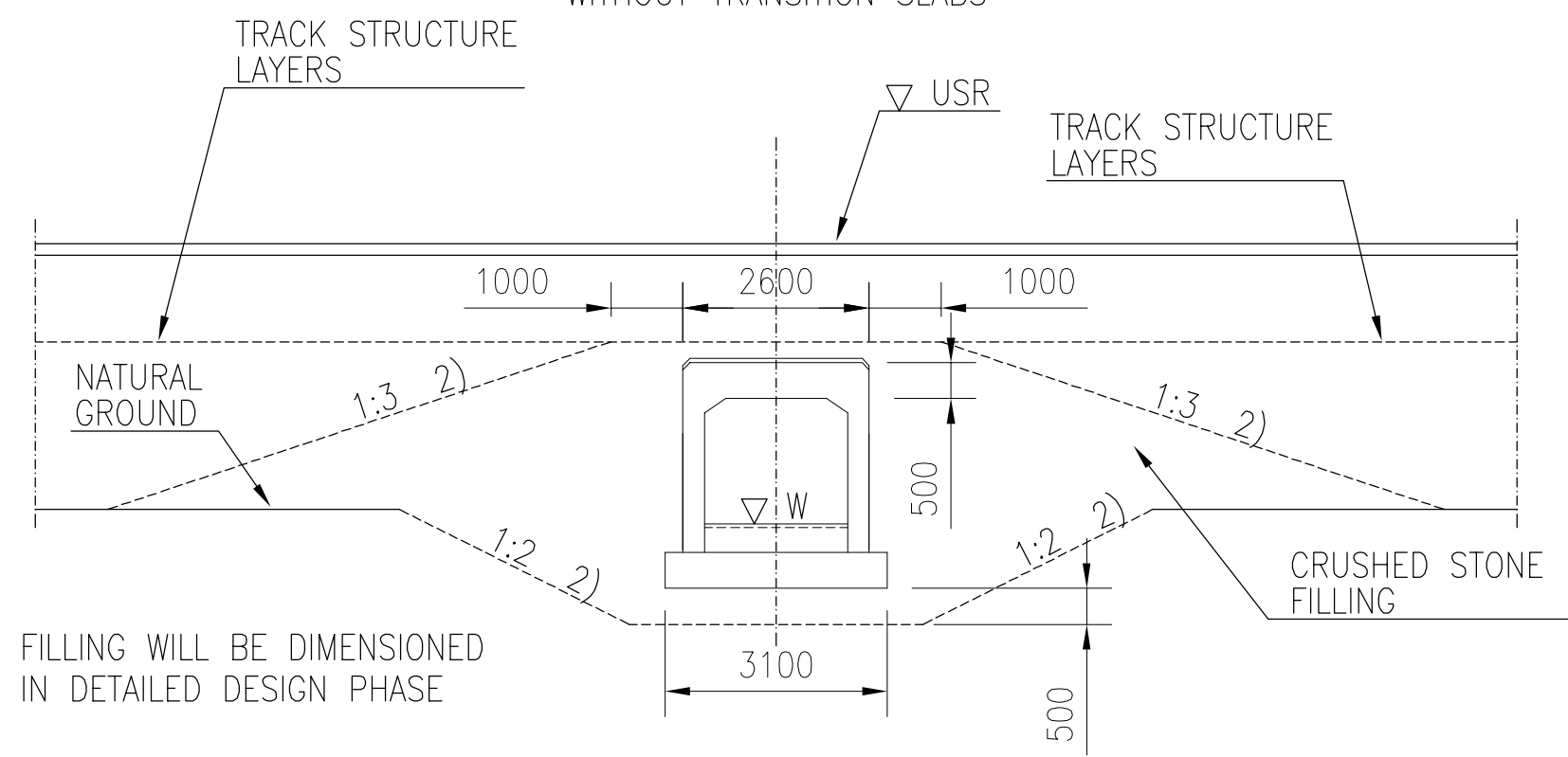
VERSION
23.10.2017



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

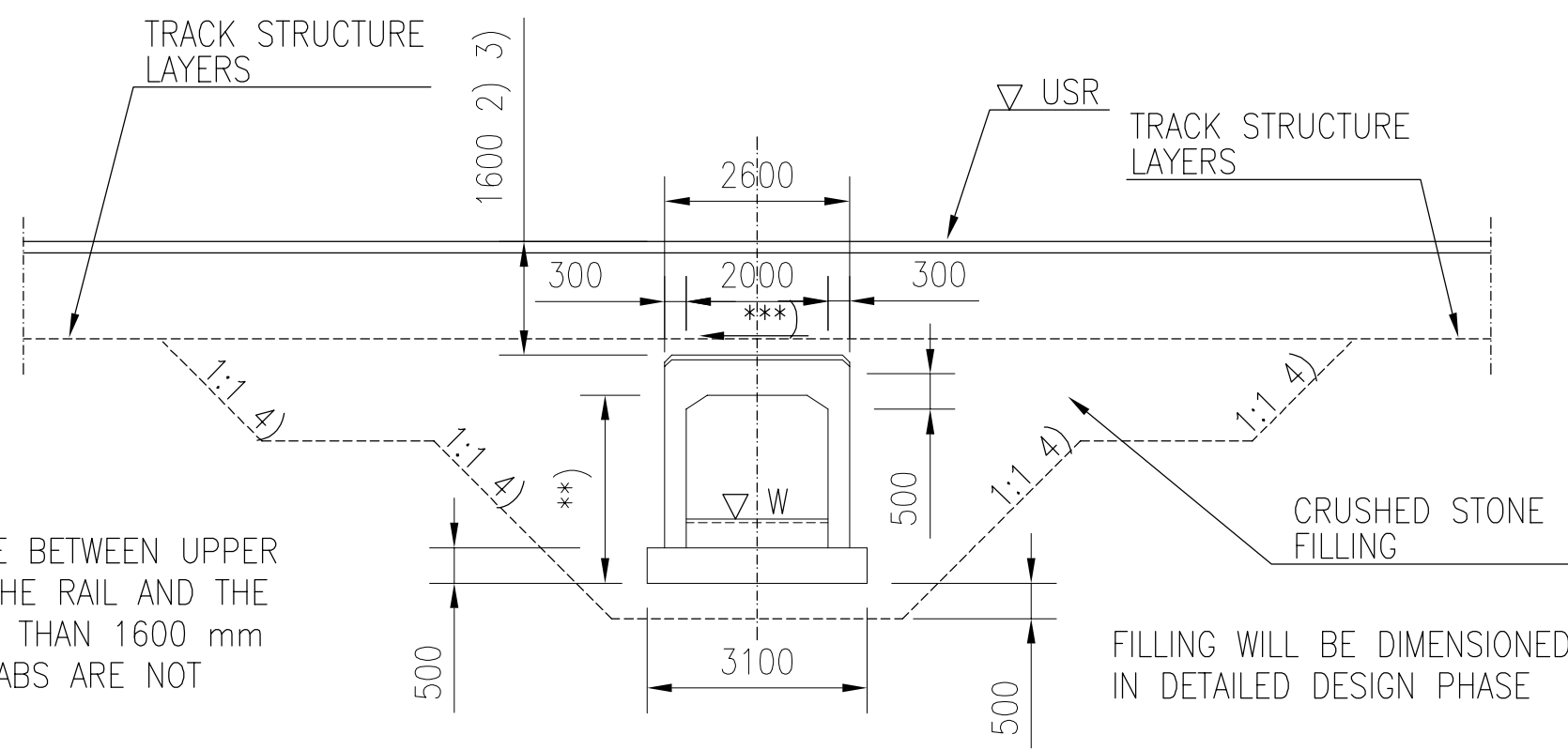
C - C 1:100

FILLING
WITHOUT TRANSITION SLABS



C - C 1:100

DIMENSIONS



2) IF DISTANCE BETWEEN UPPER SURFACE OF THE RAIL AND THE DECK IS MORE THAN 1600 mm TRANSITION SLABS ARE NOT NEEDED

3) IF DISTANCE BETWEEN UPPER SURFACE OF THE RAIL AND THE DECK IS LESS THAN 1600 mm TRANSITION SLABS AND CANTILEVER BRACKETS ON THE SIDE OF THE FRAME ARE NEEDED FILLING ACCORDING TO NOTE 4)

4) FILLING IF TRANSITION SLABS ARE NEEDED

**) BOTTOM LEVEL AND THE HEIGHT OF THE FRAME WILL BE VERIFIED IN DETAILED DESIGN PHASE

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Project				
	Railway Project				
	Design phase				
	Pre-engineering, Phase 2				
	Content				
	Culvert bridge 2 m				
	Preliminary general drawing				
	Km+km +-+				
Supplier					
	VR TRACK				
Drawer	23.10.2017	Ilkka Tiito	Loading		LM71-25
Designer	23.10.2017	Ilkka Tiito	Coordinate and elevation reference system		WGS 84 UTM 21
Supervisor	23.10.2017	Reima Nikander	Railway line		
Accept.	-	-	Archive	Type	Number
Cust. acc.	-	-	RB	-	1