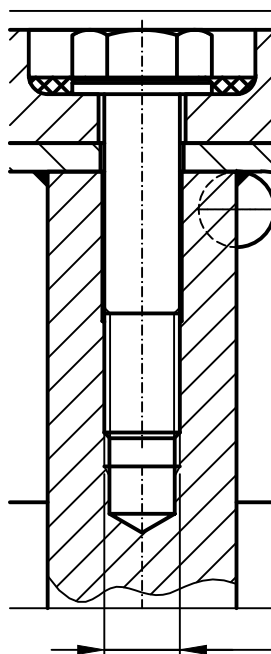




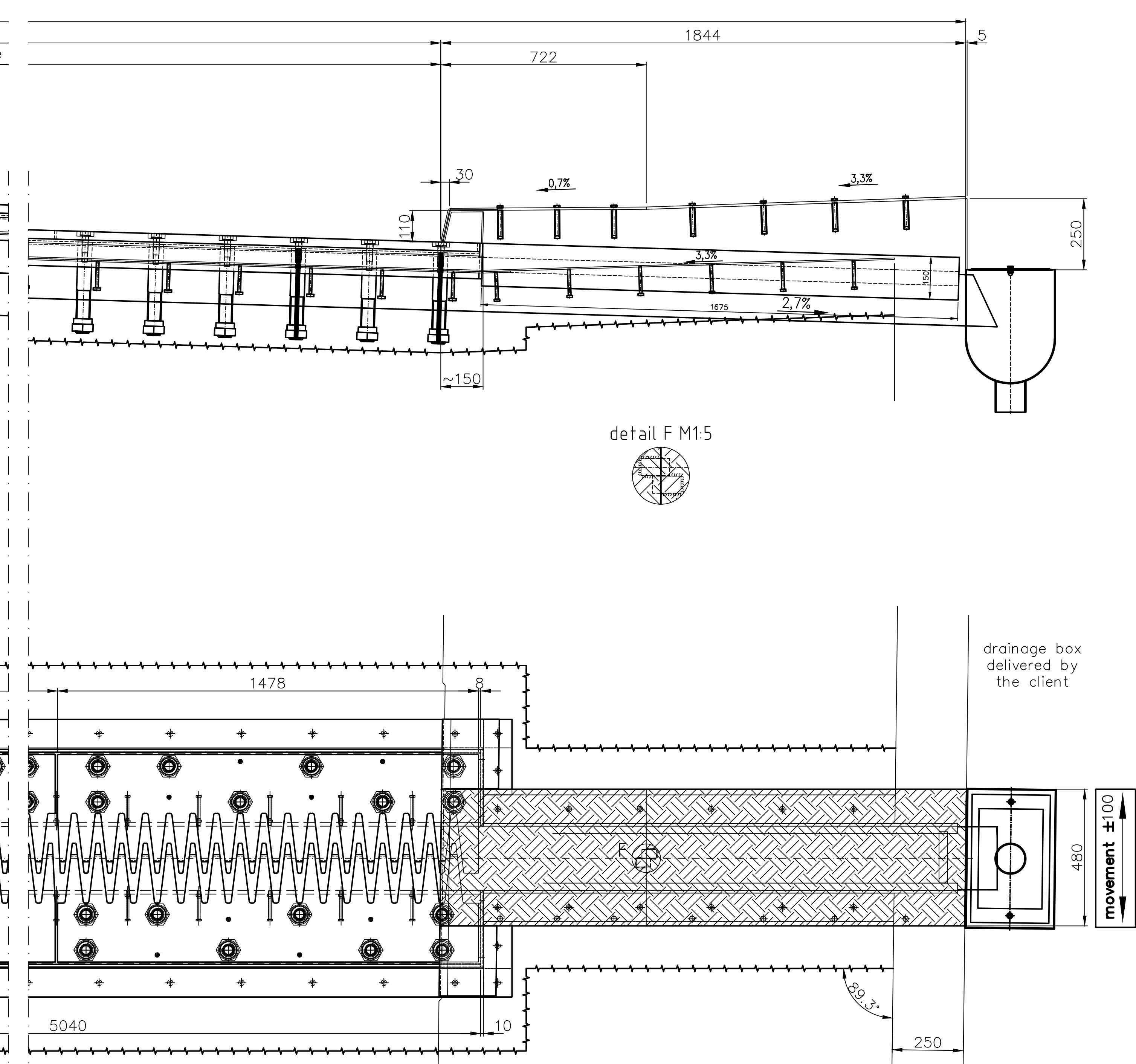
ZONA
OBUHVATA
RADOVA

INVESTITOR: HRVATSKE AUTOCESTE d.o.o. 10 000 ZAGREB, ŠIROLINA 4	KNJIGA:	SADRŽAJ: ZONA OBUHVATA RADOVA	
NARUČITELJ: HRVATSKE AUTOCESTE d.o.o. 10 000 ZAGREB, ŠIROLINA 4	GLAVNI PROJEKTANT: mr.sc. KRUNOSLAV MAVAR, dipl.ing.građ.  G 595	BROJ PROJEKTA: 72180-IZV-102/22	
GRAĐEVINA: MOST SAVA LIJEVO U KM 38+950	SURADNIK: DOROTEJA SREMEC, mag. ing. aedif.	MJERILO: 1:1000	DATUM: ožujak 2022.
VRSTA PROJEKTA: IZVEDBENI GRAĐEVINSKI PROJEKT		ARHIVSKI BROJ: IZV-102/22	BROJ PRILOGA: 1.
OZNAKA DOKUMENTA: 72180-IZP-102-22_MOST_SAVA			

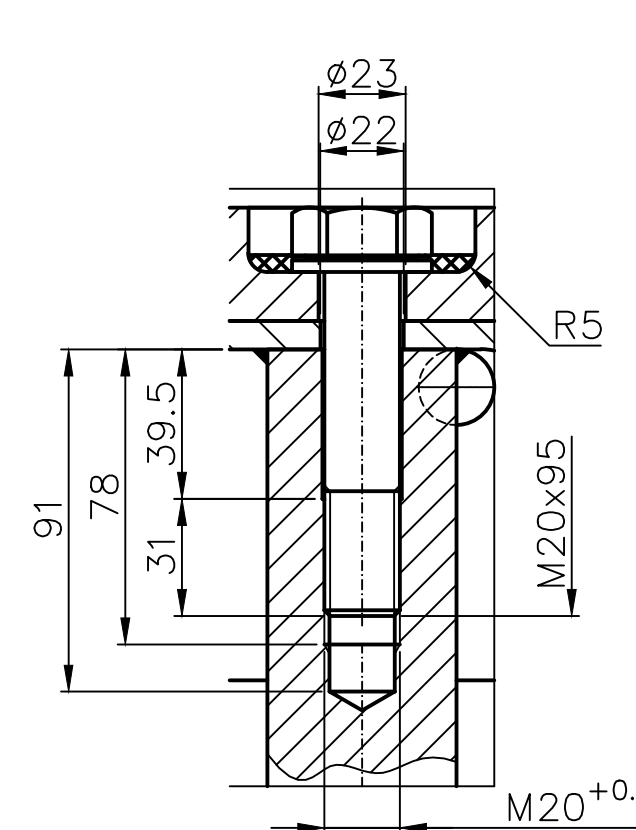


PROŠIRENJE NAVOJA
S M20 NA M24

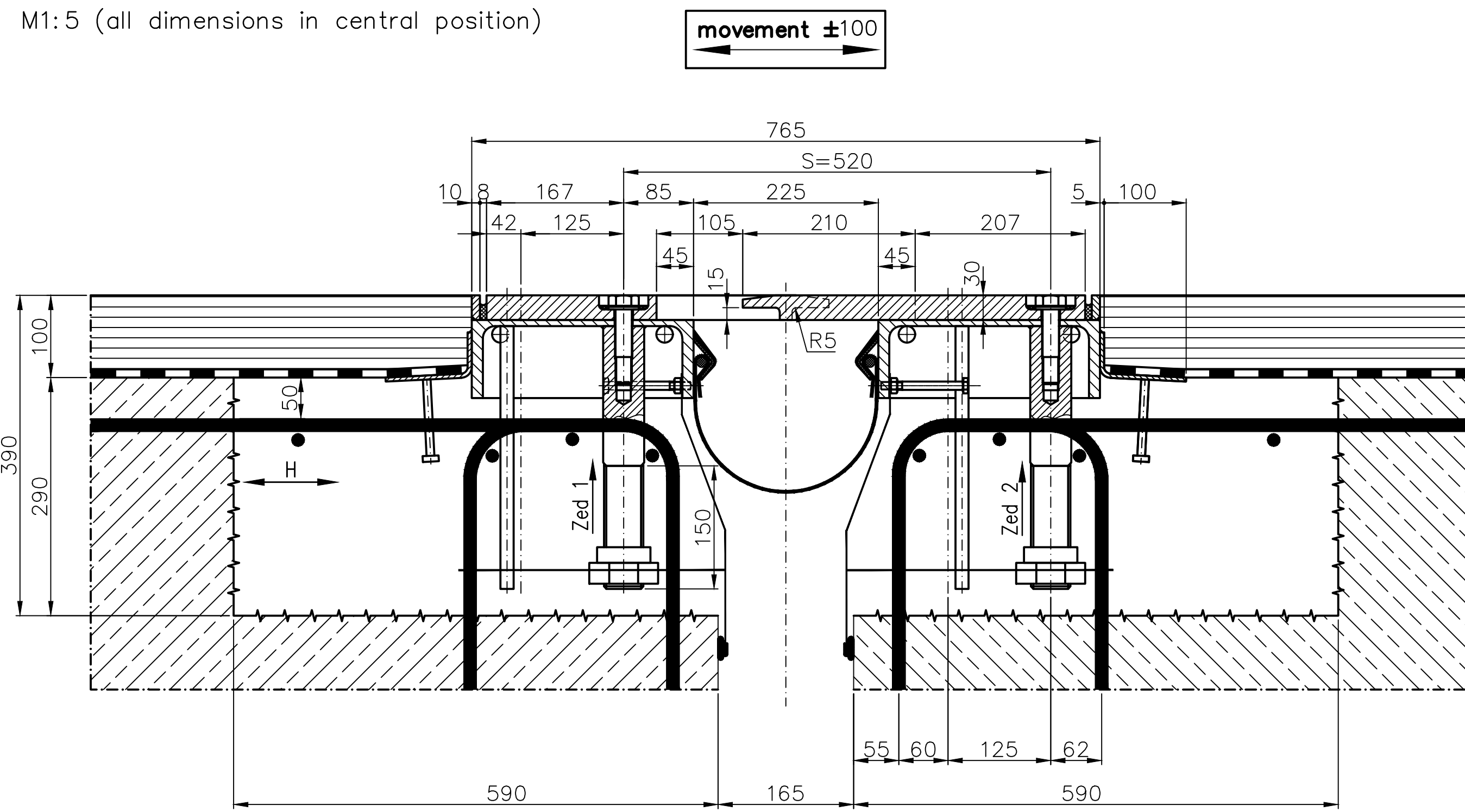
INVESTITOR: HRVATSKE AUTOCESTE d.o.o. 10 000 ZAGREB, ŠIROLINA 4	KNJIGA:	SADRŽAJ: DETALJ VIJKA	 INSTITUT IGH ZAVOD ZA PROJEKTIRANJE
NARUČITELJ: HRVATSKE AUTOCESTE d.o.o. 10 000 ZAGREB, ŠIROLINA 4	GLAVNI PROJEKTANT: mr.sc. KRUNOSLAV MAVAR, dipl.ing.građ.  mr.sc. Krunoslav Mavar dipl.ing.građ. Ovlašten inženjer građevinarstva G 595		
GRADEVINA: MOST SAVA LIJEVO U KM 38+950		MJERILO: 1:2	DATUM: ožujak 2022.
VRSTA PROJEKTA: IZVEDBENI GRAĐEVINSKI PROJEKT	SURADNIK: DOROTEA SREMEC, mag. ing. aedif.	ARHIVSKI BROJ: IZP-102/22	BROJ PRILOGA: 2.
		OZNAKA DOKUMENTA: 72180-IZP-102-22_MOST SAVA	



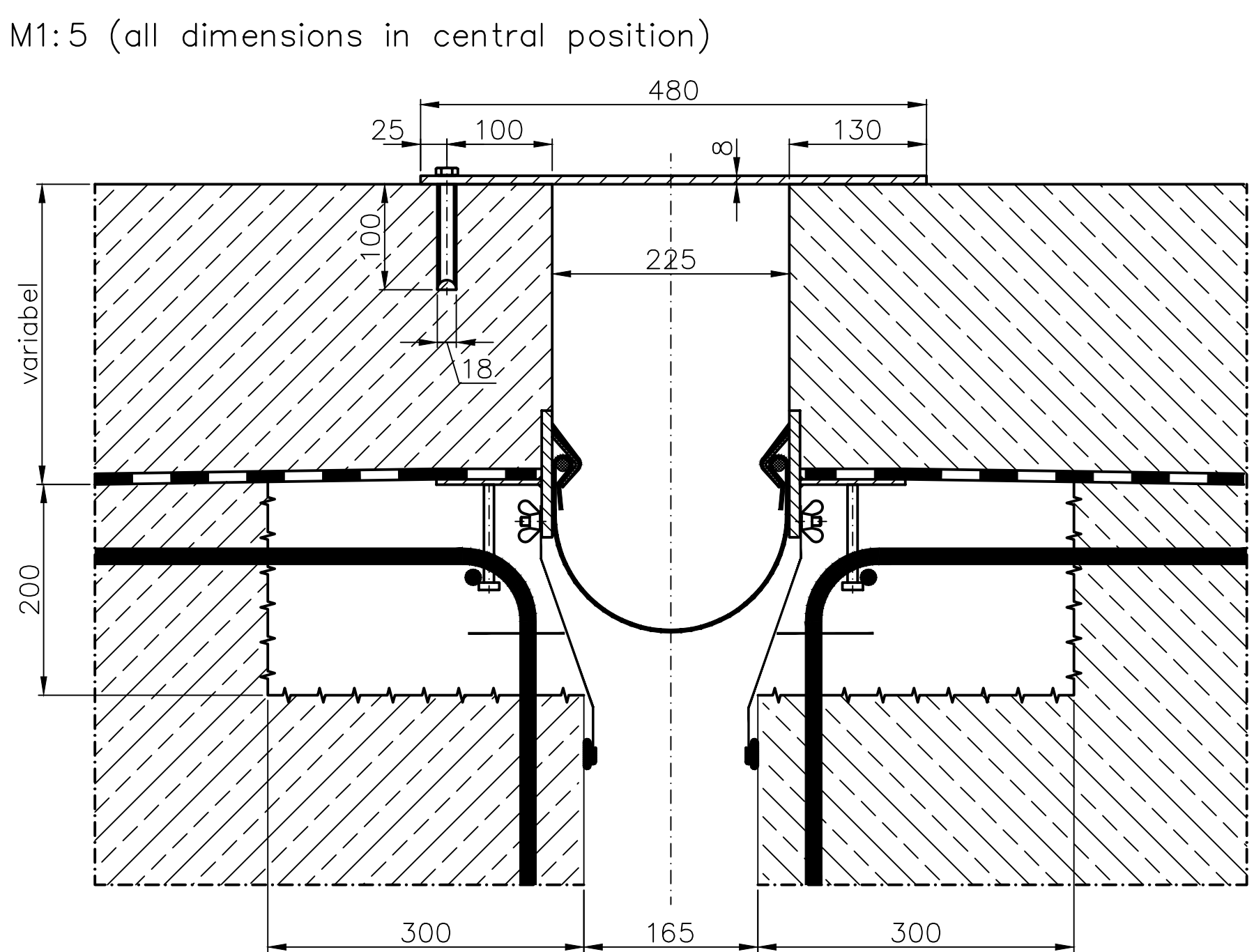
Typ	Dicke Fingerplatte Tiefe Tfgriff	max. zul. Drehweg max. anchored movement	Schrauben größe bolts dimension D5x25mm	Anker Bolzen anker bolts Ø10	Reihe 2 - hinten / row 2 - behind		Reihe 1 - vorne / row 1 - front		H-Kräfte / H-forces	
					max. Zugkraft if Anker anchored anchored ULS Zed 2	max. Schwingbreite if Anker anchored - FLS ΔF_{H1}	max. Zugkraft if Anker anchored - FLS ΔF_{H1}	max. Schwingbreite ΔF if Anker anchored anchored - FLS ΔF_{H1}	ULS F_{Hk}	FLS $F_{Hk,FLS}$
I	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]
	30	90	M16	40,0	29,5	16,0	50,5	27,0	63,0	36,4
II	30	146	M16	40,0	48,0	26,0	73,5	39,0	84,5	53,0
	35	208	M20	50,0	51,0	27,6	85,5	48,5	93,0	58,4
III	35	237	M20	50,0	82,0	44,4	104,0	59,0	103,0	66,4
	40	289	M24	50,0	81,5	44,1	120,0	59,5	103,0	66,4
IV	45	321	M24	50,0	106,5	57,7	131,7	65,1	131,0	86,4
	50	357	M24	50,0	145,0	78,5	135,0	70,2	130,0	86,4
V	55	429	M27	60,0	142,5	77,2	160,0	80,4	160,0	96,4
	60	471	M27	60,0	161,0	87,2	169,5	84,5	160,0	96,4
VI	65	532	M27	60,0	155,0	82,6	182,0	86,5	182,0	96,4
	70	590	M30	60,0	190,0	100,8	188,0	92,1	182,0	96,4
VII	75	645	M30	60,0	189,0	102,4	200,0	97,0	182,0	96,4
	80	710	M30	60,0	219,5	118,9	212,0	108,0	182,0	96,4



carriage way crosssection a-a



sidewalk crosssection b-b



pre-stressed connections	
size	tightening torque MoS2
M12	100 Nm
M16	250 Nm
M20	450 Nm
M24	800 Nm
M27	1250 Nm
M30	1650 Nm

In the course of the approval the pre-setting values are to be indicated	
place of installation	
°C	pre-setting "S"
0°	no specification; assembly in neutral position!
5°	
10°	
15°	
20°	
25°	
1/°C*	mm
temperature of structure: °C	
the gap "S" need to be set exactly in accordance to the current temperature of the structure and the given table	
*results are rectangular to the joint axis	

65	1	pcs	name plate	lasered	plastic	
57	3,6	pcs	washer	M8	St.galv.	ISO7093
63	10	kg	Agropur EG DB 703	1 kg	2-comp.	
56	1,0	kg	Agropur EG DB 701	1 kg	2-comp.	
55	1,0	kg	Agropur EG DB 702	1 kg	2-comp.	
54	1,0	kg	Agropox 10 EG DB 702	1 kg	2-comp.	
53	1,0	kg	Agrozinc IP	1 kg	2-comp.	
51	60	pcs	reinforcement	Ø16x320	BST5s	EN10080
50	110	pcs	tighten wire	Ø270x100	steel	
49	2	pcs	hexagon nut	M10	A4	ISO4032
48	4	pcs	washer	M10	A4	ISO7093
47	2	pcs	hexagon screw	M10x30	A4	ISO4017
46	116	pcs	plug	GN 300 F 21	LD-PE	
45	5	pcs	lifting device	VCR80044-2		
44	12,0	kg	sealing compound Palesit UG DB703	12kg	1-comp.	
42	7	crt.	permanent plastic sealant Darche+Solar 460	310ml cartridge	1-comp,black	
41	36	pcs	wing nut	M8	8 GZN	DIN315
40	36	pcs	Threaded stud	M8x20	4,8 CuNi	ISO13918
37	33,0	m	rubber sealing	4610113	EPDM	
29	2	pcs	head plate right	270x125x10	R235JR	EN10025
28	2	pcs	head plate left	270x125x10	R235JR	EN10025
27	2	pcs	plate sidewalk right	1665x150x5	R235JR	EN10025
26	6	pcs	plate sidewalk left	120x5	R235JR	EN10025
19	10,0	m	sealing cover plate	100x5	R235JR	EN10025
18	12,0	m	sealing cover plate	150x5	R235JR	EN10025
17	1	pcs	sidewalk cover right	completely	R235JR	
16	1	pcs	sidewalk cover left	completely	R235JR	
15	33,0	m	formwork plate	428x1,5	R235JR	EN10130
14	32,3	m	silikon cord	Ø12	VMQ 35 Sha	
13	16,2	m	elastomer	800x4	EPDM 55 Sha	
12	32,0	m	strip	60x3	1.4571	EN10088
11	128	pcs	head bolt	Ø10x100	R235J2+C450	ISO13918
10	92	pcs	hexagon nut	M10	8 GZN	ISO4032
9	92	pcs	hexagon screw	M10x100	8 GZN	ISO4014
8	116	pcs	square locknut	SW6x51,05	R355JR	EN10025
7	116	pcs	anchor hexagon nut	SW7x325,4	R355JR	EN10025
6	116	pcs	anchor rod	Ø50x320	R355JR	EN10060
5	116	pcs	washer	20	C45 HDG	EN14399-6
4	116	pcs	hexagon screw	HD-M20x95	10 HDG	EN14399-4
3	23,0	m	strip	30x10	R235JR	EN10058
2	23,0	m	UPE profile	270	R235JR	EN10279
1	7	pcs	finger plate pair	627x30	R355J2+N	EN10025
pos.	qty.	unit	name	dimension	material	norm

CORROSION PROTECTION SYSTEM				
WITH ZINC-COATING ACCORDING EN12944-5 SYSTEM C5-M, ASM.06				
SIMILAR S13 ACCORDING RVS 15.05.11, WITHOUT BB8 ACCORDING RVS 15.04.51				
LAYER	NDFT µm	CAL	COATING AREAS	
Surface preparation sandblasting grade SA 2½	—	—	complete surface except custom coated surfaces	
GB binder 2-pack epoxid resin pigment zincpowder	70 grey	grey	complete surface except custom coated surfaces	
ZB binder 2-pack epoxid resin pigment ironinorganic	80 DB 702 grey	grey	complete surface except custom coated surfaces	
1.DB binder 2-pack polyurethane resin pigment ironinorganic	80 DB 701 grey	grey	complete surface except custom coated surfaces	
KS binder 2-pack polyurethane resin pigment ironinorganic	80 DB 702 grey	grey	complete surface except custom coated surfaces	
2.DB binder 2-pack polyurethane resin pigment ironinorganic	80 DB 703 grey	grey	complete surface except custom coated surfaces	
Complete Surface: Including all free steel areas LEGEND: GB base coating, KS edge protection coating, ZB intermediate coating DB intermediate coating, NDFT nominal dry film thickness				
CUSTOM COATED SURFACES				
sandblasting grade SA 2½	—	—	concrete covered area(s)	
hot dip galvanizing according to DIN EN ISO 1461	—	—	pos: 15, 16, 17	
no corrosion protection needed because of stainless steel	—	—	pos: 12	
GB binder 2-pack epoxid resin pigment zincpowder	70 grey	grey	3cm wide strip of concrete touching areas and the contacting area of the bridge sealing	
ZB binder 2-pack epoxid resin pigment ironinorganic	80 DB 702 grey	grey	friction surfaces of slip resistant connections	
GBF binder 1-component ethyl-silicate pigment zincpowder	40-60 grey	grey	below shoulder of slip resistant connections within the fingerplates	
GBF binder 1-component ethyl-silicate pigment zincpowder	40-60 grey	grey	free steel areas between the fingers = friction surface	
DB Palest UG+Boosterpaste	1mm	DB 703 grey	bottom and backside of the steelangle for the sealing- connection including a 1cm wide strip on the top end of the outer side	
surface preparation sandblasting SA 2½				
complete light on the outside of the steelgirder except for the start strip				
surface preparation sandblasting SA 2½				
complete light on the outside of the steelgirder except for the start strip				
welding area of construction masking tape (weatherproof)	—	—	50mm wide strip from the welded edge	
GB binder 2-pack epoxid resin pigment zincpowder	70 grey	grey	up to the masking tape; Do not remove the masking tape; apply coating up to 200mm before the welded edge	
ZB binder 2-pack epoxid resin pigment ironinorganic	80 DB 702 grey	grey	apply coating up to 250mm before the welded edge	
1.DB binder 2-pack polyurethane resin pigment ironinorganic	80 DB 701 grey	grey	apply coating up to 300mm before the welded edge	
KS binder 2-pack polyurethane resin pigment ironinorganic	80 DB 702 grey	grey	apply coating up to 300mm before the welded edge	
2.DB binder 2-pack polyurethane resin pigment ironinorganic	80 DB 703 grey	grey	apply coating up to 300mm before the welded edge	
surface preparation machine cleaning				
GB corrosion protection	390	—	welded area and free steel areas in the area of masking tape always up to the edge of the next coating	

CROSSING ANGLE AND MOVEMENT ANGLE				in reference to the joint axis:																					
Crossing angle:				89,3°																					
Movement angle:				90°																					
FOR ALL NOT TOILED DIMENSIONS APPLY:				APPLY FOR FINER PLATES:																					
General Tolerances		EN 22768 - 1/m		Boundary dimensions EN 10029 - Tab.1/																					
General Tolerance for welded structure		EN ISO 13920-B		Flatness																					
Flame cutting		EN ISO 9013-5-321		w/omaterial flatness EN 10029 - Tab.5/5																					
EVALUATION GROUP FOR:				requirements for finished surface of fingerplates																					
Welding irregularities		EN ISO 5817-B		2mm/m																					
ADDITION IN CASE OF STEEL-BASE WITH UPE:				Surface composition EN 10163-2/B2																					
Limit Deviations		EN 10270-1-2																							
0,5mm on 2/3 from total area, max. 1mm locally																									
INFORMATION FOR PRESETTING:																									
The joint is drawn without presetting. The presetting measure is defined from longitudinal to the gap. The fingerplates need to be moved in longitudinal direction (=natural movement of the bridge) against each other, when setting the joint to the appropriate presetting according to the table (520 mm measure between the bolts in one axis)																									
CONCRETE STRENGTH :																									
Before any loads are applied to the joint the concrete strength has to be at minimum 25 N/mm² or higher! This also applies for site-traffic!																									
NOTES TO PREVENT SNOW PLOW DAMAGE:																									
In our audit purposes and duty to warn, we point out that the expansion joint to prevent snowplow damage is built in the longitudinal gradient of the bridge																									
CONNECTION REINFORCEMENT OF SUPERSTRUCTURE:																									
the reinforcements of the connection has to be designed and calculated according to our shop drawings from the planer of the superstructure. For steel reasons the connection has be executed in right angle to the joint axis																									
PLANNING DOCUMENTS:																									
Content of plan:		Sava prekid naprave																							
Number of plan:		1																							
Content of plan:		Sava prijedlog prijelazne lijevnai asfalt																							
Number of plan:		1																							
The copyright on these drawings and all attachments, which have been trusted previously to the receiver, belongs to mabeqa at all times. Without the express written permission of mabeqa the drawings must not be passed on or made accessible to third parties. To guarantee the traceability of these drawings in accordance with ISO 9001, any electronic transmission shall be in PDF format only.																									
<table border="1"> <tr> <th>rev.</th> <th>date</th> <th>name</th> <th>type of revision</th> <th colspan="2"></th> </tr> <tr> <td>rev. 19.03.15</td> <td>jate</td> <td>order#</td> <td>VCR80044</td> <td colspan="2" rowspan="3">  </td> </tr> <tr> <td>date 23.03.15</td> <td>klm</td> <td>proj.#</td> <td></td> </tr> <tr> <td colspan="4">customer: SPCA INFENIERING d.o.o.</td> </tr> </table>						rev.	date	name	type of revision			rev. 19.03.15	jate	order#	VCR80044			date 23.03.15	klm	proj.#		customer: SPCA INFENIERING d.o.o.			
rev.	date	name	type of revision																						
rev. 19.03.15	jate	order#	VCR80044																						
date 23.03.15	klm	proj.#																							
customer: SPCA INFENIERING d.o.o.																									
object: MOST "ORVA" - ZAGREBAČKA ZAOLBAZNIKA scale: 1:10 date: 19.03.15 order# : VCR80044																									