

I. KRITERIJI				III. VPLIV NA VARNOST IN NAPREDOVANJE			IV. UKREPI		
ŠT.	1. POZICIJA	2. VELIKOST	3. OD DALJNOST	4. ZAPOLNJENOST	1. TVEGANJA	2. IZKOP	3. RAZISKAVE	1. POSTOPEK UKREPANJA	2. KRATEK OPIS UKREPOV
1.	IZKOP PREDORA V KRAŠKEM POJAVU	KRAŠKI KANAL, LJAK,... VEUKOST < 2m		NEZAPOLNJENO	- GLOBALNA STABILNOST PREDORA NI OGROŽENA - V KOMBINACIJI Z RAZPOKANIM ALI PRETRITIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - NEVARNOST PRI DELU NA ČELU	- PREKINITEV NAPREDOVANJA - NADALJEVANJE IZKOPA PO IZVEDBI LOKALNEGA ZAVAROVANJA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - TAKOŠNJA IZVEDBA ZAČASNE SANACIJE V TAKŠNI MERI, DA OMOGOČA NADALJNI IZKOP - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- ZAVAROVANJE MESTA - V SKLOPU OGLEDA DOLOČITI UKREPE - TAKOŠNJA IZVEDBA ZAČASNE SANACIJE V TAKŠNI MERI, DA OMOGOČA NADALJNI IZKOP - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- IZVEDBA BYPASSOV - VGRADNJA ARMATURNJE MREŽE - NAKNADNO INJEKTIRANJE IZZA (STROP), IZVEDBA BETONSKE PLOŠČE (TLA) - DOLOČITEV NOTRANJE OBLOGE NA PODLAGI KRAŠOSLOVNIH IN HIDROLOŠKIH RAZISKAV - V PRIMERU PREDORA NAD NADVIŠJIM NIVOJ
2.				POPLAVLJENO Z VODO ALI ZAPOLNJENO S SLABO NOSILNIM MATERIALOM	- NEVARNOST VDORA VODE - V KOMBINACIJI Z RAZPOKANIM MATERIALOM IN ZAPOLNjenOSTJO Z ŽIDKIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - GLOBALNA STABILNOST PREDORA NI OGROŽENA - ZADRŽEVANJE NA ČELU OMEJENO	- USTAVITEV NAPREDOVANJA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA RAZISKAVE - GEORADAR	- UREDITEV DRENIRANJA IN ODVODNJEVANJA - IZVESTI UKREPE PRED POPLAVLJANJEM - IZDELAVA PROJEKTE DOKUMENTACIJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA NADALJNI IZKOP	- IZVEDBA ZAPORE NA KONTURI PREDORA NA STIKU Z KANALOM Z INJEKTIRANEM ALI DRUGO METODO - IZVEDBA DRENAŽNIH VRTIN TER IZČRPNJE VODE - UKREPI PO TOČKI 1.IV.2
3.		KRAŠKA JAMA, PODZEMNI PROSTOR,... VEUKOST > 2m		NEZAPOLNJENO	- POTENCIALNA NESTABILNOST PREDORA - V KOMBINACIJI Z RAZPOKANIM MATERIALOM LAHKO PRIHAJA DO NESTABILNOSTI - NEVARNOST PRI DELU NA ČELU	- USTAVITEV NAPREDOVANJA - V PRIMERU USTAVITVE DEL NA KALOTI SO MOŽNA DEJA NA STOPNICI IN TALNEM OBOKU	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- NA PODLAGI KRAŠOSLOVNEGA POROČIL IZDELAVA PROJEKTE DOKUMENTACIJE PREMAŠČAJA KRAŠKEGA POJAVJA - IZVEDBA OSNOVNIH UKREPOV, KI OMOGOČAJO NAPREDOVANJE - IZVEDBA CELOVITE REŠITVE	- ZASIP Z IZKOPNIM MATERIALOM - IZVEDBA BYPASSOV - PO MOŽNOSTI IZDELAVA IZPUSTA - IZVEDBA UMETNE KONTURE IZ BRIZGA NEGA BETONA IN ARMATURNIH MREŽ MREŽ - ZAPOLNITEV ZALEDIJA, V TLEH BETONSKE PLOŠČE ALI PREMOSTITVENE OBJEKTE, ZAPOLNITEV PRAŽNIN
4.				POPLAVLJENO Z VODO	- NEVARNOST VDORA VODE - ZADRŽEVANJE NA ČELU OMEJENO	- USTAVITEV NAPREDOVANJA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- UREDITEV DRENIRANJA IN ODVODNJEVANJA - IZVESTI UKREPE PRED POPLAVLJANJEM - IZDELAVA PROJEKTE DOKUMENTACIJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA NADALJNI IZKOP	- IZVEDBA DRENAŽNIH VRTIN TER IZČRPNJE VODE - UKREPI PO TOČKI 3.IV.2
5.	IZKOP PREDORA V BUŽINI KRAŠKEGA POJAVJA	KRAŠKI KANAL, LJAK,... VEUKOST < 2m	V TEMENU >2m v BOKIH >2m V TALNEM OBOKU >4m	NEZAPOLNJENO ALI POPLAVLJENO Z VODO	- GLOBALNA STABILNOST PREDORA NI OGROŽENA	- BREZ PREKINITEV	- OGLED S STRANI GEOLOGA, HIDROGEOLOGA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- PO OGLEDU IN RAZISKAVAH SE SPREJME ODLOČITEV O MOREBITNIH NAKNADNIH UKREPIH	- BREZ VEČIH UKREPOV
6.			V TEMENU <2m v BOKIH <2m V TALNEM OBOKU <4m	NEZAPOLNJENO	- GLOBALNA STABILNOST PREDORA NI OGROŽENA - V KOMBINACIJI Z RAZPOKANIM ALI PRETRITIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - EVENTUALNA NEVARNOST PRI DELU NA ČELU	- PREKINITEV NAPREDOVANJA - NADALJEVANJE IZKOPA PO IZVEDBI LOKALNEGA ZAVAROVANJA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAV - GEORADAR - KAMERA	- ZAVAROVANJE MESTA - V SKLOPU OGLEDA DOLOČITI UKREPE - TAKOŠNJA IZVEDBA ZAČASNE SANACIJE V TAKŠNI MERI, DA OMOGOČA NADALJNI IZKOP - MOREBITNA KONČNA SANACIJA PRED ZAČETKOM BETONAŽE NOTRANJE OBLOGE	- VGRADNJA ARMATURNJE MREŽE - NAKNADNO BRIZGA NEGA BETONA - DOLOČITEV NOTRANJE OBLOGE NA PODLAGI KRAŠOSLOVNIH IN HIDROLOŠKIH RAZISKAV - V PRIMERU PREDORA NAD NADVIŠJIM NIVOJEM PODEZMNE VODE UPORABA DRENIRANEGA PREREZA
7.				POPLAVLJENO Z VODO ALI ZAPOLNJENO Z ŽIDKIM MATERIALOM	- NEVARNOST VDORA VODE - V KOMBINACIJI Z RAZPOKANIM MATERIALOM IN ZAPOLNjenOSTJO Z ŽIDKIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - GLOBALNA STABILNOST PREDORA NI OGROŽENA - ZADRŽEVANJE NA ČELU OMEJENO	- PREKINITEV ALI USTAVITEV NAPREDOVANJA - NADALJEVANJE IZKOPA PO IZVEDBI LOKALNEGA ZAVAROVANJA IN UREDITVI DRENAŽNEGA SISTEMA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAV - GEORADAR	- UREDITEV DRENIRANJA IN ODVODNJEVANJA - IZVESTI UKREPE PRED POPLAVLJANJEM - IZDELAVA PROJEKTE DOKUMENTACIJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA NADALJNI IZKOP	- IZVEDBA DRENAŽNIH VRTIN TER IZČRPNJE VODE - IZVESTI UKREPE PRED POPLAVLJANJEM - IZDELAVA PROJEKTE DOKUMENTACIJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA NADALJNI IZKOP
8.		KRAŠKA JAMA, PODZEMNI PROSTOR,... VEUKOST > 2m IN <10m	V TEMENU >5m v BOKIH >5m V TALNEM OBOKU >10m	NEZAPOLNJENO	- GLOBALNA STABILNOST PREDORA NI OGROŽENA	- BREZ PREKINITEV	- OGLED S STRANI GEOLOGA, HIDROGEOLOGA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAVE - GEORADAR	- PO OGLEDU IN RAZISKAVAH SE SPREJME ODLOČITEV O MOREBITNIH NAKNADNIH UKREPIH	- BREZ VEČIH UKREPOV
9.			V TEMENU <5m v BOKIH <5m V TALNEM OBOKU <10m	NEZAPOLNJENO	- GLOBALNA STABILNOST PREDORA NI OGROŽENA - V KOMBINACIJI Z RAZPOKANIM ALI PRETRITIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - EVENTUALNA NEVARNOST PRI DELU NA ČELU	- PREKINITEV NAPREDOVANJA - NADALJEVANJE IZKOPA PO IZVEDBI LOKALNEGA ZAVAROVANJA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAV - GEORADAR - KAMERA	- ZAVAROVANJE MESTA - V SKLOPU OGLEDA DOLOČITI UKREPE - TAKOŠNJA IZVEDBA ZAČASNE SANACIJE V TAKŠNI MERI, DA OMOGOČA NADALJNI IZKOP - MOREBITNA KONČNA SANACIJA PRED ZAČETKOM BETONAŽE NOTRANJE OBLOGE	- ZASIP Z IZKOPNIM MATERIALOM - PO MOŽNOSTI IZDELAVA IZPUSTA - VGRADNJA ARMATURNJE MREŽE - NAKNADNO BRIZGA NEGA BETONA - DOLOČITEV NOTRANJE OBLOGE NA PODLAGI KRAŠOSLOVNIH IN HIDROLOŠKIH RAZISKAV - V PRIMERU PREDORA NAD NADVIŠJIM NIVOJEM PODEZMNE VODE UPORABA D
10.				POPLAVLJENO Z VODO ALI ZAPOLNJENO S SLABO NOSILNIM MATERIALOM	- NEVARNOST VDORA VODE - V KOMBINACIJI Z RAZPOKANIM MATERIALOM IN ZAPOLNjenOSTJO Z ŽIDKIM MATERIALOM LAHKO PRIHAJA DO LOKALNIH NESTABILNOSTI - GLOBALNA STABILNOST PREDORA NI OGROŽENA - ZADRŽEVANJE NA ČELU OMEJENO	- PREKINITEV ALI USTAVITEV NAPREDOVANJA - NADALJEVANJE IZKOPA PO IZVEDBI LOKALNEGA ZAVAROVANJA IN UREDITVI DRENAŽNEGA SISTEMA	- OGLED S STRANI PROJEKTANTA, GEOLOGA, HIDROGEOLOGA IN INŽENIRJA - DODATNO PREDVRTAVANJE - KRAŠOSLOVNE IN HIDROGEOLOŠKE RAZISKAV - GEORADAR	- UREDITEV DRENIRANJA IN ODVODNJEVANJA - IZVESTI UKREPE PRED POPLAVLJANJEM - IZDELAVA PROJEKTE DOKUMENTACIJE - IZVEDBA ZAČASNE SANACIJE, KI OMOGOČA NADALJNI IZKOP	- IZVEDBA DRENAŽNIH VRTIN TER IZČRPNJE VODE - IZVEDBA PREDVRTAVANJA IN UTRIEVANJA Z INJEKTIRANEM S POUIURETANOM - DODATNI BRIZGANI BETON IN ARMATURN A MREŽA - PO MOŽNOSTI IZDELAVA IZPUSTA - DOLOČITEV NOTRANJE OBLOGE NA PODLAGI KRAŠOSLOVNIH IN HIDROLOŠKIH
	IZKOP PREDORA V KRAŠKEM POJAVU- PREPRAVNIČEN ALI PREPRAVNIČEN V VODONOSNIKU			PREDOR JE STALNO NAD NIVOJEM VODE, OBSTAJA PA MOŽNOST, DA SE BO PO KONČANI IZGRADNJI NIVO VODE DVIGNIL PREDOR JE STALNO POD NIVOJEM VODE	- BREZ POSEBNIH TVEGANJ - POVEČANI DOTOKI VODE, TUDI POD VIŠJIMI PRITISKI	- BREZ PREKINITEV - OTEŽENO NAPREDOVANJE	- HIDROGEOLOŠKE RAZISKAVE IN MERITVE NIVOJA VODE - HIDROGEOLOŠKE RAZISKAVE IN MERITVE NIVOJA VODE	- NA PODLAGI STOPNJE ZAKRASELOSTI IN RAZISKAV SE DOLOČI PREČNI PREREZ PREDORA - NA PODLAGI STOPNJE ZAKRASELOSTI IN RAZISKAV SE DOLOČI PREČNI PREREZ PREDORA	- INJEKTIRANJE S CEMENTNO INJEKTIRANO MASO - INJEKTIRANJE S POUIURETANI
11.									
12.									

I. CRITERIUM				III. IMPACT ON SECURITY AND PROGRESS				IV. MEASURES	
St.	1.POSITION	2. SIZE	3. DISTANCE	4. OCCUPANCY	1. RISKS	2. EXCAVATION	3. RESEARCHES	1. ACTION PROCEDURE	2. BRIEF DESCRIPTION OF THE MEASURES
1.	EXCAVATION OF A TUNNEL IN THE KARST PHENOMENON	KARST CAVE, FUNNEL... SIZE < 2m		UNFILLED	- THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LOCAL INSTABILITIES MAY COME IN COMBINATION WITH CRACKS OR CRACKED MATERIAL - DANGER WHEN WORKING ON THE FACE	- TERMINATION OF PROGRESS - CONTINUATION OF EXCAVATION AFTER IMPLEMENTATION OF LOCAL INSURANCE	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES	- PLACE INSURANCE - IDENTIFY MEASURES AS PART OF THE VISIT - IMMEDIATE IMPLEMENTATION OF TEMPORARY RENOVATION TO THE EXTENT TO ENABLE FURTHER EXCAVATION - POSSIBLE FINAL RENOVATION BEFORE THE CONCRETE OF THE INTERIOR COVERING	- IMPLEMENTATION OF BYPASSES - IMPLEMENTATION OF WIRE MESH REINFORCEMENT - DEPOSIT OF SHOTCRETE - SUBSEQUENT INJECTION BEHIND THE CEILING, CONCRETE PLATE CONSTRUCTION - DETERMINATION OF THE INTERIOR COVER ON THE BASIS OF KARSTOLOGICAL AND HYDROLOGICAL RES
2.				FLOODED WITH WATER OR FILLED WITH LOW BEARING MATERIAL	- RISK OF WATER INTRUSION - LOCAL INSTABILITIES MAY COMBINE IN COMBINATION WITH CRACKED MATERIAL OR FILLING WITH LIQUID MATERIALS - THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LIMITED RESTRICTON ON THE FACE	- STOPPING PROGRESS	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- DRAINAGE AND WATER DRAINAGE ARRANGEMENTS - TAKE MEASURES BEFORE FLOOD - PREPARATION OF PROJECT DOCUMENTATION - IMPLEMENTATION OF TEMPORARY RENOVATION, WHICH ALLOWS FURTHER EXCAVATION	- IMPLEMENTATION OF THE CLOSURE ON THE CONTROL OF THE TUNNEL AT THE CONTACT WITH THE CHANNEL BY INJECTION OR ANOTHER METHOD - PERFORMANCE OF DRAINAGE BOREHOLES AND WATER PUMPING - MEASURES UNDER POINT 1.IV.2
3.		KARST CAVE, UNDERGROUND AREA... SIZE > 2m		UNFILLED	- POTENTIAL INSTABILITY OF THE TUNNEL - LOCAL INSTABILITIES MAY COME IN COMBINATION WITH CRACKS OR CRACKED MATERIAL - DANGER WHEN WORKING ON THE FACE	- STOPPING PROGRESS - IN THE CASE OF STOPPING WORKS ON THE TOP HEADING, WORK ON THE BENCH AND INVERT ARCH IS POSSIBLE	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- ON THE BASIS OF A CARSTOLOGICAL REPORT PREPARATION OF PROJECT DOCUMENTATION FOR THE MOVEMENT OF THE KARST PHENOMENON - IMPLEMENTATION OF BASIC MEASURES TO REINFORCEMENTS - IMPLEMENTATION OF THE COMPLETE SOLUTION	- FILLING WITH EXCAVATING MATERIAL - IMPLEMENTATION OF BYPASSES - POSSIBILITY OF MAKING AN OUTLET - IMPLEMENTATION OF ARTIFICIAL CONTOUR OF SHOTCRETE AND WIRE MESH - FILLING THE BACKGROUND, FLOORS OF CONCRETE PLATES OR BRIDGING BUILDINGS, F
4.				FLOODED WITH WATER	- RISK OF WATER INTRUSION - LIMITED RESTRICTON ON THE FACE	- STOPPING PROGRESS	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- DRAINAGE AND WATER DRAINAGE ARRANGEMENTS - TAKE MEASURES BEFORE FLOOD - PREPARATION OF PROJECT DOCUMENTATION - IMPLEMENTATION OF TEMPORARY RENOVATION, WHICH ALLOWS FURTHER EXCAVATION	- IMPLEMENTATION OF DRAINAGE BOREHOLES AND WATER PUMPING - MEASURES UNDER POINT 3.IV.2 - IMPLEMENTATION OF BOREHOUGH AND HARDENING BY POLYURETHANE INJECTION - DETERMINATION OF THE INTERIOR COVERING THE BASIS OF HYDRAULIC AND HYDROLOGICAL RESEARCH
5.	EXCAVATION OF A TUNNEL NEAR THE KARST PHENOMENON	KARST CAVE, FUNNEL... SIZE < 2m	IN TUNNEL CROWN >2m ON THE SIDE >2m IN INVERT ARCH >4m	UNFILLED OR FLOODED WITH WATER	- THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED	- WITHOUT TERMINATION	- EXAMINATION BY THE GEOLOGIST AND HYDROGEOLOGIST - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- AFTER THE EXAMINATION AND RESEARCHES, A DECISION ON POSSIBLE SUPPLEMENTARY MEASURES IS TAKEN	- WITHOUT MAJOR MEASURES
6.			IN TUNNEL CROWN <2m ON THE SIDE <2m IN INVERT ARCH <4m	UNFILLED	- THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LOCAL INSTABILITIES MAY COME IN COMBINATION WITH CRACKS OR CRACKED MATERIAL - POSSIBLE DANGER WHEN WORKING ON THE FACE	- STOPPING PROGRESS - CONTINUATION OF EXCAVATION AFTER IMPLEMENTATION OF LOCAL INSURANCE	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR - CAMERA	- PLACE INSURANCE - IDENTIFY MEASURES AS PART OF THE VISIT - IMMEDIATE IMPLEMENTATION OF TEMPORARY RENOVATION TO THE EXTENT TO ENABLE FURTHER EXCAVATION - POSSIBLE FINAL RENOVATION BEFORE THE CONCRETE OF THE INTERIOR COVERING	- IMPLEMENTATION OF WIRE MESH REINFORCEMENT - DEPOSIT OF SHOTCRETE - DETERMINATION OF THE INTERIOR COVERING ON THE BASIS OF KARSTOLOGICAL AND HYDROLOGICAL RESEARCHES - IN THE CASE OF A TUNNEL ABOVE THE HIGHEST GROUNDWATER LEVEL, USE OF A DRAINED SECTION
7.				FLOODED WITH WATER OR FILLED WITH LIQUID MATERIAL	- RISK OF WATER INTRUSION - LOCAL INSTABILITIES MAY COMBINE IN COMBINATION WITH CRACKED MATERIAL OR FILLING WITH LIQUID MATERIALS - THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LIMITED RESTRICTON ON THE FACE	- TERMINATION OR STOPPING PROGRESS - CONTINUATION OF EXCAVATION AFTER THE IMPLEMENTATION OF LOCAL INSURANCE AND ARRANGEMENT OF THE DRAINAGE SYSTEM	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- DRAINAGE AND WATER DRAINAGE ARRANGEMENTS - TAKE MEASURES BEFORE FLOOD - PREPARATION OF PROJECT DOCUMENTATION - IMPLEMENTATION OF TEMPORARY RENOVATION, WHICH ALLOWS FURTHER EXCAVATION	- IMPLEMENTATION OF DRAINAGE BOREHOLES AND WATER PUMPING - IMPLEMENTATION OF BOREHOUGH AND HARDENING BY POLYURETHANE INJECTION - ADDITIONAL SHOTCRETE AND WIRE MESH REINFORCEMENT - DETERMINATION OF THE INTERIOR COVERING THE BASIS OF KARSTOLOGICAL AND HYDR
8.		KARST CAVE, UNDERGROUND AREA... SIZE > 2m AND <10m	IN TUNNEL CROWN >5m ON THE SIDE >5m IN INVERT ARCH >10m	UNFILLED	- THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED	- WITHOUT TERMINATION	- EXAMINATION BY THE GEOLOGIST AND HYDROGEOLOGIST - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- AFTER THE EXAMINATION AND RESEARCHES, A DECISION ON POSSIBLE SUBSEQUENT MEASURES IS TAKEN	- WITHOUT MAJOR MEASURES
9.			IN TUNNEL CROWN <5m ON THE SIDE <5m IN INVERT ARCH <10m	UNFILLED	- THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LOCAL INSTABILITIES MAY COME IN COMBINATION WITH CRACKS OR CRACKED MATERIAL - POSSIBLE DANGER WHEN WORKING ON THE FACE	- STOPPING PROGRESS - CONTINUATION OF EXCAVATION AFTER IMPLEMENTATION OF LOCAL INSURANCE	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR - CAMERA	- PLACE INSURANCE - IDENTIFY MEASURES AS PART OF THE VISIT - IMMEDIATE IMPLEMENTATION OF TEMPORARY RENOVATION TO THE EXTENT TO ENABLE FURTHER EXCAVATION - POSSIBLE FINAL RENOVATION BEFORE THE CONCRETE OF THE INTERIOR COVERING	- FILLING WITH EXCAVATING MATERIAL - POSSIBILITY OF MAKING AN OUTLET - IMPLEMENTATION OF WIRE MESH REINFORCEMENT - DEPOSIT OF SHOTCRETE - DETERMINATION OF THE INTERIOR COVER ON THE BASIS OF KARSTOLOGICAL AND HYDROLOGICAL RESEARCH - IN THE CASE OF A PE
10.				FLOODED WITH WATER OR FILLED WITH LOW BEARING MATERIAL	- RISK OF WATER INTRUSION - LOCAL INSTABILITIES MAY COMBINE IN COMBINATION WITH CRACKED MATERIAL OR FILLING WITH LIQUID MATERIALS - THE GLOBAL STABILITY OF THE TUNNEL IS NOT THREATENED - LIMITED RESTRICTON ON THE FACE	- TERMINATION OR STOPPING PROGRESS - CONTINUATION OF EXCAVATION AFTER THE IMPLEMENTATION OF LOCAL INSURANCE AND ARRANGEMENT OF THE DRAINAGE SYSTEM	- EXAMINATION BY THE DESIGNER, GEOLOGIST, HYDROGEOLOGIST AND ENGINEER - ADDITIONAL DRILLING - KRASOLOGICAL AND HYDROGEOLOGICAL RESEARCHES - GEORADAR	- DRAINAGE AND WATER DRAINAGE ARRANGEMENTS - TAKE MEASURES BEFORE FLOOD - PREPARATION OF PROJECT DOCUMENTATION - IMPLEMENTATION OF TEMPORARY RENOVATION, WHICH ALLOWS FURTHER EXCAVATION	- PERFORMANCE OF DRAINAGE BOREHOLES AND WATER PUMPING - IMPLEMENTATION OF BOREHOUGH AND HARDENING BY POLYURETHANE INJECTION - ADDITIONAL SHOTCRETE AND WIRE MESH REINFORCEMENT - POSSIBILITY OF MAKING AN OUTLET - DETERMINATION OF THE INTERIOR COVER ON T
11.	EXCAVATION OF A TUNNEL IN THE KARST PHENOMENON – WEATHERED, POROUS OR CRACKED LIMESTONE IN THE AZQUFER			TUNNEL IS CONSTANTLY ABOVE THE WATER LEVEL, AND THERE IS A POSSIBILITY THAT THE WATER LEVEL WILL RISE AFTER CONSTRUCTION IS COMPLETED	- NO SPECIAL RISKS	- WITHOUT TERMINATION	- HYDROLOGICAL RESEARCHES AND WATER LEVEL MEASUREMENTS	- AFTER THE INSPECTION AND RESEARCH, A DECISION ON POSSIBLE SUBSEQUENT MEASURES IS TAKEN	- INJECTION WITH CEMENT INJECTED MASS
12.				TUNNEL IS CONSTANTLY UNDER THE WATER LEVEL	- INCREASED WATER INFLOWS, ALSO UNDER HIGHER PRESSURES	- DIFFICULT PROGRESS	- HYDROLOGICAL RESEARCHES AND WATER LEVEL MEASUREMENTS	- AFTER THE INSPECTION AND RESEARCH, A DECISION ON POSSIBLE SUBSEQUENT MEASURES IS TAKEN	- POLYURETHANE INJECTION